Ontario

BUILDING TOGETHER

JOBS & PROSPERITY FOR ONTARIANS

Ministry of Infrastructure

LETTER FROM THE MINISTER OF INFRASTRUCTURE

Eight years ago, the government of Ontario was given a mandate to fix public services after years of deep cuts and neglect. In the case of our public infrastructure, the need for fresh ideas and new investments was acute. By the early 2000s, decades of underinvestment had taken a significant toll on our infrastructure. Poorly maintained and inadequate roads were putting at risk Ontario's economic strength, while overcrowded classrooms and deteriorating hospitals were threatening our quality of life.

This government responded on three levels. First, we increased investments in public infrastructure. The level rose from $2.6 billion in 2003–04 to $14.1 billion in 2010–11. The province has not seen this level of investment in public infrastructure in decades. Our investments have created or preserved close to 100,000 jobs on average in each of the past six years, and have made Ontario a better place for businesses to locate and grow and for families to live.

Second, we brought an unprecedented level of planning and management to infrastructure activity. In 2005, we released ReNew Ontario, our first public long-term infrastructure plan, a five-year plan implemented in four years. We also created Infrastructure Ontario to manage and in some cases help finance large, complex projects and improve procurement. As a result of this and other innovations, Ontario today has one of the most dynamic markets for infrastructure in the world.

Third, we collaborated and partnered with the government of Canada, Ontario municipalities and others to meet infrastructure needs. One example is the infrastructure stimulus effort that started in 2009 as part of a worldwide consensus to fight the worst recession since the Great Depression. It has been seen as the largest and most successful infrastructure stimulus initiative in the history of Ontario and Canada.

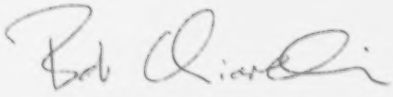
This new 10-year plan for Ontario is an essential next step to build on these accomplishments.

In the extensive consultations we undertook across Ontario in preparing this plan, we heard strong consensus on the need to continue investing in infrastructure to keep this province economically competitive. Another point of agreement was the importance of taking a long-term view. Virtually all key decision-makers, including hospital chief executive officers, university presidents, city managers, and construction industry leaders, are now looking at time horizons of 10 years or more for critical infrastructure decisions. They need government partners with the same planning horizon.

Through our consultations we also heard clearly about the continuing need to address Ontario's infrastructure deficit, including deferred maintenance. Although our investments have significantly reduced that deficit, they have not eliminated it. This is a pan-Canadian challenge that must be resolved by all three orders of government — federal, provincial, and municipal — working in partnership. It is our government's intention, as a matter of policy, to take and encourage all necessary steps to create alignment and action on this matter.

This 10-year plan is intended to provide clarity, sustainability, and greater predictability in our infrastructure policies and to keep Ontario economically competitive. It sets out a strategic framework that will guide future investments in ways that support economic growth, are fiscally responsible, and respond to changing needs. It is a key underpinning of our goal to create a legacy of first-rate public infrastructure for all Ontarians.

I offer my sincere thanks to Ministry staff who have worked so diligently to bring together this 10-year infrastructure plan, and to all those who so kindly and effectively shared their wisdom and advice in the consultation process.



Bob Chiarelli
Minister of Infrastructure

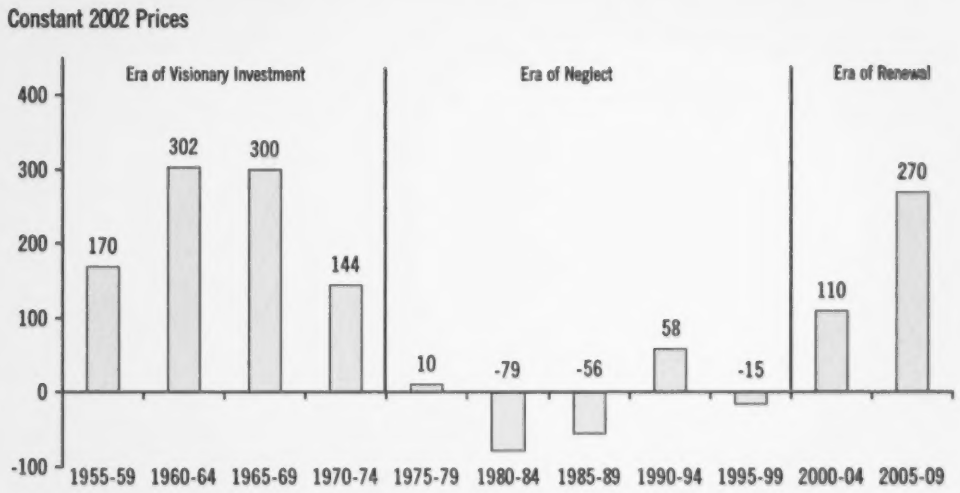
EXECUTIVE SUMMARY

Our economy and our quality of life depend on good public infrastructure.

The government of Ontario has taken significant steps to reverse the massive infrastructure deficit — estimated at tens of billions of dollars — that had accumulated over the last several decades and was threatening our long-term prosperity.

Since 2003, the government has invested $62 billion in infrastructure. As Chart 1 makes clear, the province has not seen this level of investment since the post-war era, when many of the foundations of our present-day infrastructure, including the 400-series highways and the Toronto subway, were first laid.

CHART 1 **Average Annual Change in Per Capita Net Public Stock**



Sources: Statistics Canada and Ontario Ministry of Infrastructure

The purpose of this plan is to chart a course forward for Ontario's infrastructure.

Despite record levels of investment over the last seven years, the case for continued investment and strategic planning is as compelling as ever. Our competitiveness is at stake. Jurisdictions around the world are pouring massive new resources into infrastructure to address their own infrastructure deficits and to spur economic growth.

Over the last six years, the Province has averaged $10 billion in infrastructure investments per year. Through this plan, the Province expects to continue significant investments in public infrastructure over the next decade, and will begin by investing more than $35 billion over the next three years. Infrastructure investments will drive continued economic growth and enhanced quality of life. Transportation, education, and health care will be significant priorities.

The plan responds to projected long-term economic, demographic, and environmental changes. These include a more global and service-oriented economy; a larger, older, and more urbanized population; and the effects of a changing climate.

Key investment priorities will include:

- **Getting Ontario's goods to market with better highways, bridges, and border crossings**
    - Finishing major projects, including the Windsor-Essex Parkway, which is expected to reduce travel time to the border by close to 20 minutes on average for each of the 6,500 trucks that cross every day, and the 407 East extension, which will add east-west capacity through Durham Region by carrying as many as 6,000 vehicles an hour in each direction
    - Expanding Ontario's network of high-occupancy vehicle (HOV) lanes, which have been shown to shorten driving time for all traffic
    - Rehabilitating highways, bridges, culverts, and other structures to meet state-of-good-repair targets
    - Adding at least 500 centreline-kilometres of highway where warranted by growth and demand

- **Giving commuters fast, affordable, and environmentally sound transit options**
  - Improving and expanding transit with the ultimate goal of creating a truly regional transit system in the Greater Toronto and Hamilton Area and helping reach GO Transit's goal of increasing ridership to more than 100 million trips a year
  - Supporting transit in Ontario's growing urban areas, including Ottawa and Waterloo Region
- **Educating a strong and innovative workforce**
  - Completing the rollout of full-day kindergarten across the province
  - Ensuring a system of elementary and secondary schools that meets present and future needs and is in an appropriate state of repair
  - Finishing construction of 49 postsecondary projects through the Knowledge Infrastructure Program, which with other initiatives will help to create more than 36,000 new spaces
  - Ensuring that infrastructure investments respond to demand and support the goal of a 70 per cent attainment rate for postsecondary education
  - Adding to Ontario's knowledge infrastructure that includes research facilities, commercialization hubs, and broadband assets
- **Ensuring healthier lifetime outcomes**
  - Expediting the shift towards a model that is focused on providing an aging population with appropriate health supports at home and in the community to help ease pressures on hospitals
  - Completing the 27 major hospital projects under construction, and continuing to invest in hospital expansions and redevelopment projects, subject to fiscal capacity
  - Investing in three to five major hospital expansions and redevelopment projects each year, subject to fiscal capacity
- **Helping Ontario's rural areas, regions, and cities**
  - Providing investment and other supports to smaller communities that lack the capacity to address water-related infrastructure needs on their own

- Enhancing the Trans-Canada Highway corridors in northern Ontario
- Improving broadband access in rural and remote areas
- Continuing to find ways and means to work with other orders of government to build and renovate social and affordable housing

This plan also sets out directions to ensure effective investments in cultural and tourism infrastructure, in the justice system, in supporting the delivery of social services, in ensuring accessibility, and in providing more streamlined access to government services.

Ultimately, this plan is designed to give municipalities, the broader public sector, and industry greater clarity and predictability to plan for Ontario's collective infrastructure needs.

To implement this plan, Ontario will:

- Make greater use of Infrastructure Ontario to procure the province's infrastructure. This will drive savings for the public and help the province maintain its status as one of the most dynamic infrastructure procurement markets in the world.
- Consult with its public sector partners on developing asset management plans that would build on and consolidate existing requirements. These plans, which would be phased in over time, would be required of organizations seeking significant provincial capital funds. Good asset management practices allow public and private organizations to achieve better value from existing infrastructure and set future priorities.
- Adopt a 10-year perspective for infrastructure planning, while making decisions to move ahead on specific projects through the Province's annual planning and budgeting processes.
- Support a strong and competitive construction sector within Ontario and promote its products and services internationally.
- Work with the federal government, municipalities, neighbouring jurisdictions, and Aboriginal peoples to address together the challenges of the current infrastructure deficit and emerging needs.

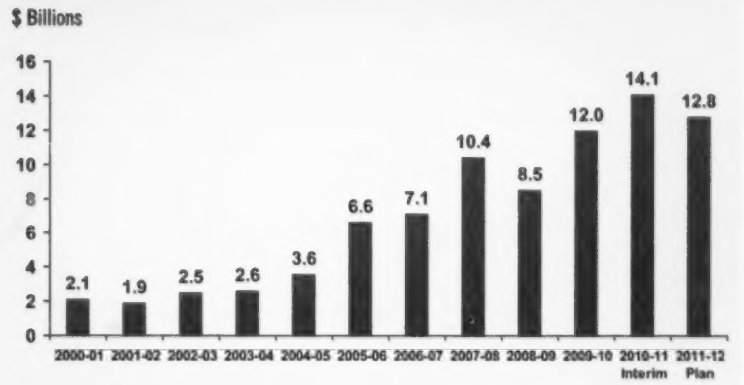
In summary, this plan sets out an infrastructure investment program that will act as a catalyst for economic growth and better quality of life.

Table of Contents

INTRODUCTION

The government of Ontario has been making historic investments in public infrastructure. After several decades of underinvestment, the Province has increased spending on infrastructure from $2.6 billion in 2003–04 to $14.1 billion in 2010–11. In total, Ontario has invested some $62 billion in infrastructure since 2003, not including this year's planned $12.8 billion. These investments have, for example, strengthened our highway and transit networks, the places where our children learn, our hospitals, and our justice system. They have also created hundreds of thousands of jobs directly and indirectly. As a result, Ontario today is a much better place to invest, work, and raise a family.

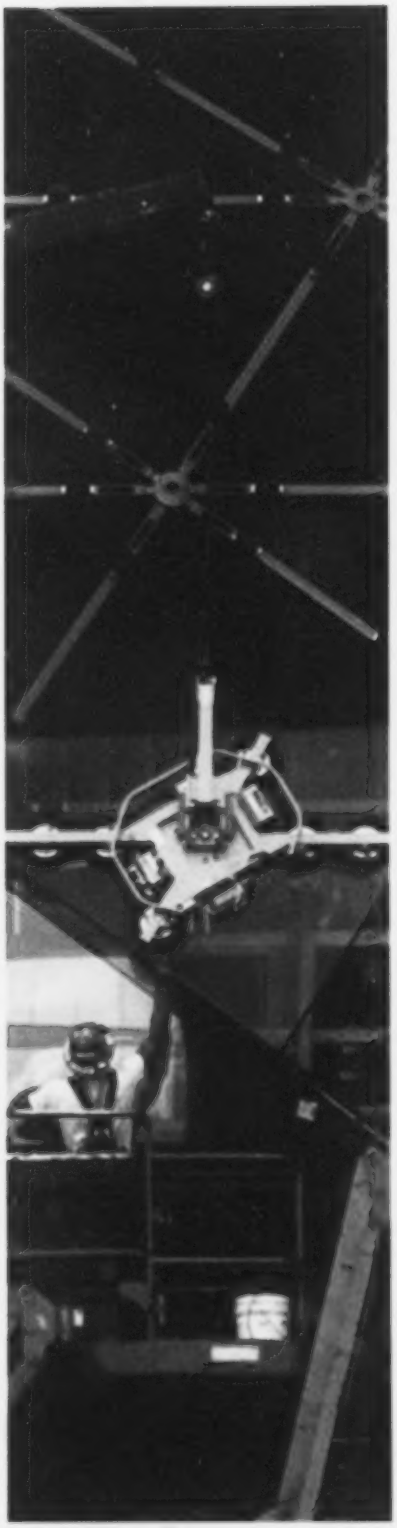
CHART 2 **Total Infrastructure Investment***



*Total Infrastructure Investment is net of third-party contributions

Note: Starting in 2002–03 Infrastructure Investments include the cost of tangible capital assets acquired by consolidated government organizations. Starting in 2005–06, the provincial reporting entity was expanded to include colleges, school boards, and hospitals.

Source: Ontario Ministry of Infrastructure



The purpose of this plan is to underscore the Province's continued commitment to infrastructure — both to key investments themselves and to the strategic long-term planning they demand.

As set out in the *2011 Ontario Budget*, over the next three years, the Province's investments in infrastructure will total more than $35 billion, creating and preserving more than 300,000 jobs.

Investments on this scale are not unique to Ontario. Jurisdictions around the world have been pouring massive new resources into infrastructure to address their own infrastructure deficits and to boost economic growth.

The case for continued investment remains strong:

- Ontario's economic competitors are not reducing their investments — if anything, they are boosting them. Over the next 20 years, global investments in infrastructure (including economic assets like telecommunications, road, rail, energy, and water infrastructure) are projected to average $2 trillion a year.
- The quality of infrastructure, especially transportation, is often a key factor when a business is considering where to locate. This is a central reason for the major new investments being made by the world's fastest-growing economies.
- Infrastructure investments generate economic returns. Every dollar invested in infrastructure:
    - Creates as much as $1.11 in economic growth, according to a Conference Board of Canada analysis of recent investments;
    - Reduces business costs by an average of 11 cents, according to Statistics Canada estimates;
    - Increases worker productivity — in fact, investments in infrastructure accounted for 24 per cent of recent labour productivity growth, the Conference Board estimates; and

- Is a dollar invested in our quality of life — in the roads on which we drive, the schools where our children learn, and the health care facilities on which we rely.

- Investments in infrastructure also create jobs: directly and indirectly, investments have preserved or created close to 100,000 Ontario jobs on average in each of the past six years.

In the same vein, the case for long-term strategic planning has never been greater. Infrastructure typically lasts for decades. Given the size of the province's infrastructure portfolio, and the rate of economic and demographic change, decisions about what to build today require a clear understanding not just of present needs but also of future trends and demands. Increasingly, decision-makers in municipalities, hospitals, school boards, colleges, and other public sector organizations are planning over 10-year or longer time horizons. The Province must do the same.

This long-term plan provides clarity, sustainability, and greater predictability in Ontario's infrastructure policies, while focusing on ensuring the province remains economically competitive. The intent of this plan is not to list all infrastructure projects that will proceed over the next 10 years, but rather to set out a strategic framework to guide future investments as needs evolve. Among other considerations, this plan will ensure investments are fiscally responsible and responsive to changing economic conditions. To that end, the government will adopt a 10-year perspective for infrastructure planning, while making decisions to move ahead on specific projects through the Province's annual planning and budgeting processes.

"Investments in infrastructure are expensive but they are among the best investments government can make. Our infrastructure shapes the long-run prosperity of our economy, society, and communities. Economic development turns on more intensive and productive use of space and also on increasing the velocity of moving people, goods, and ideas. The infrastructure we build now can help stimulate demand and provide good jobs for people who need them, and play an important role preparing our economy for the future."

—Richard Florida

Ultimately, the government's infrastructure policies are grounded in the knowledge that even though recent investments have reduced the infrastructure deficit, they have not eliminated it. There is much still to do, and Ontario cannot do it all alone. The Province has a leadership role to play in helping to ensure a more strategic coordination of intergovernmental infrastructure initiatives. The federal government, municipalities, and the private sector are all expected to contribute to this effort. In that regard, this plan is the start of a process. The goal, in the end, is to leave behind a legacy of first-rate public infrastructure for all Ontarians.

What is infrastructure?

Ontario is served by a large, complex portfolio of public infrastructure with a replacement value of close to $400 billion. Public infrastructure includes highways, bridges, culverts, transit systems, schools, universities, hospitals, drinking water and wastewater systems, parks, and government buildings. Private infrastructure includes telephone and cable networks, as well as other utilities. This plan addresses public infrastructure excluding the energy sector. In Ontario, there are both private and public sector owners of energy infrastructure. The Ministry of Energy recently produced a Long-Term Energy Plan, available on its website, that discusses the electricity sector's outlook and requirements over the next decade.

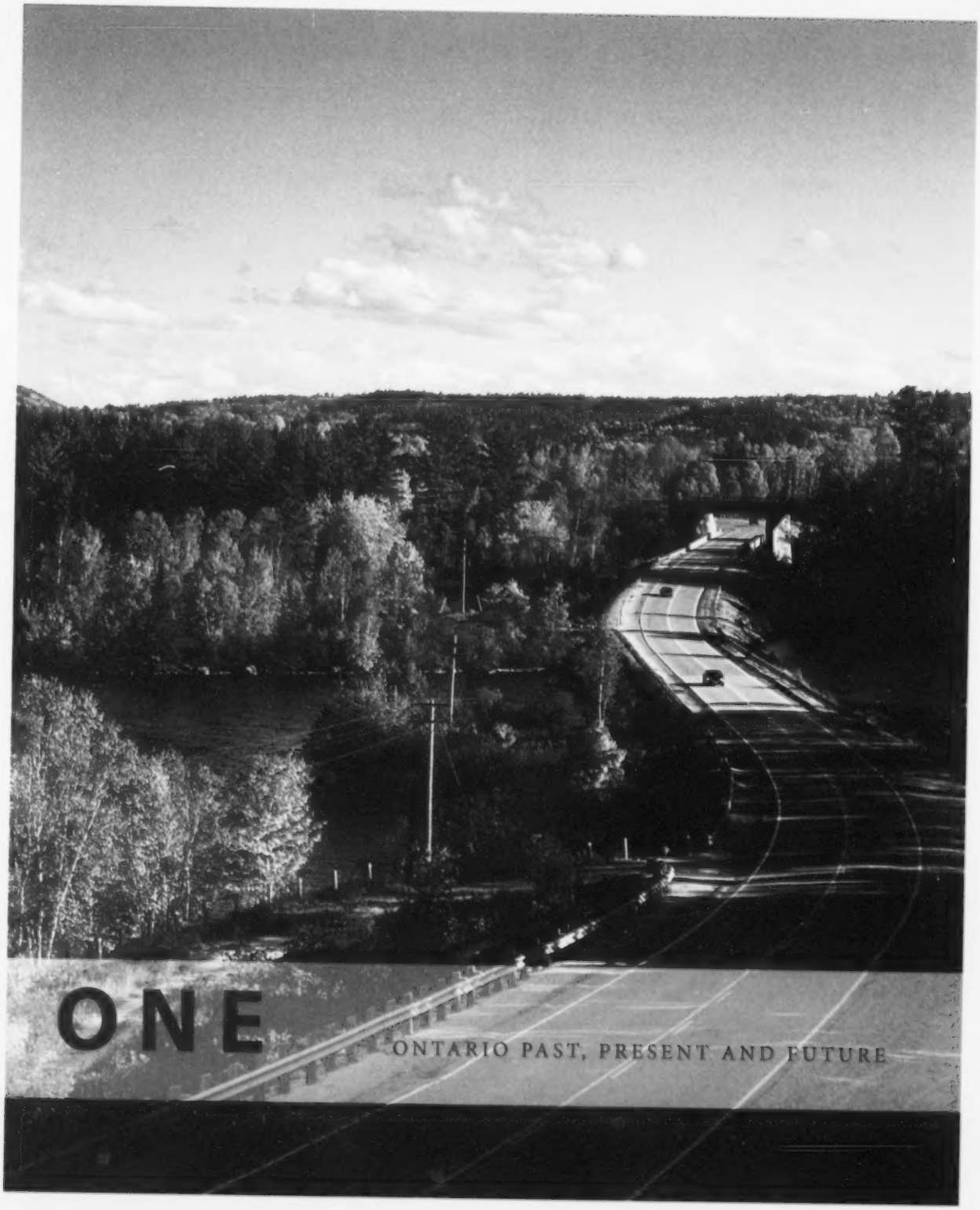
Listening to others

In preparing this plan, the Minister of Infrastructure sought the views of people across Ontario, using the questions set out in the box on this page as a starting point. Roundtable meetings in every region brought together Ontario's municipal leaders, community representatives, the people who design and build projects, and individual Ontarians who use public infrastructure. Many organizations and individuals also took the time to provide their views in writing. This expertise and range of experience provided valuable guidance in developing the plan. The government appreciates the depth of thought put into the submissions and conversations that helped to shape this plan.

The government envisions working with Aboriginal peoples in implementing this 10-year plan. Decisions about specific infrastructure projects arising from the plan will be made through Ontario's annual planning and budgeting processes. It will be the responsibility of individual ministries to consider the potential impact of their respective projects on Aboriginal or treaty rights, and ensure that appropriate consultation takes place.

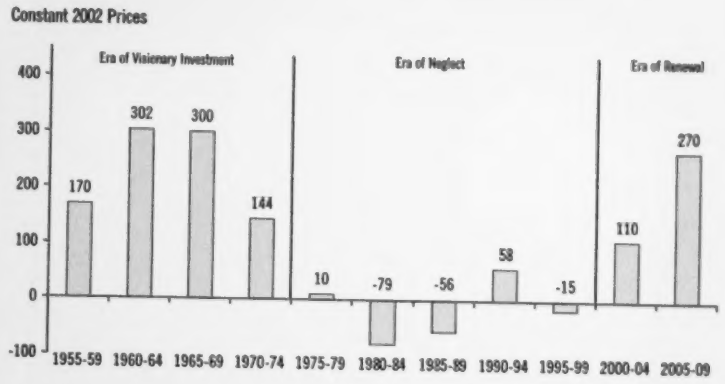
The questions for public input

- What types of public infrastructure assets do you or your organization use most?
- What are the key economic and social trends that you think will most affect the province's infrastructure needs over the coming decade?
- Given the deficit challenges Ontario faces, what do you think the most important infrastructure investment priorities should be in the next 10 years?
- In your opinion, how could we transform the delivery, financing or management of infrastructure to better meet provincial needs?


ONE
ONTARIO PAST, PRESENT AND FUTURE

Ontario's mix of public infrastructure reflects government decisions stretching back more than 100 years. The current portfolio has been particularly shaped by three distinct eras of investment since the Second World War.

CHART 3 Average Annual Change in Per-Capita Net Public Stock

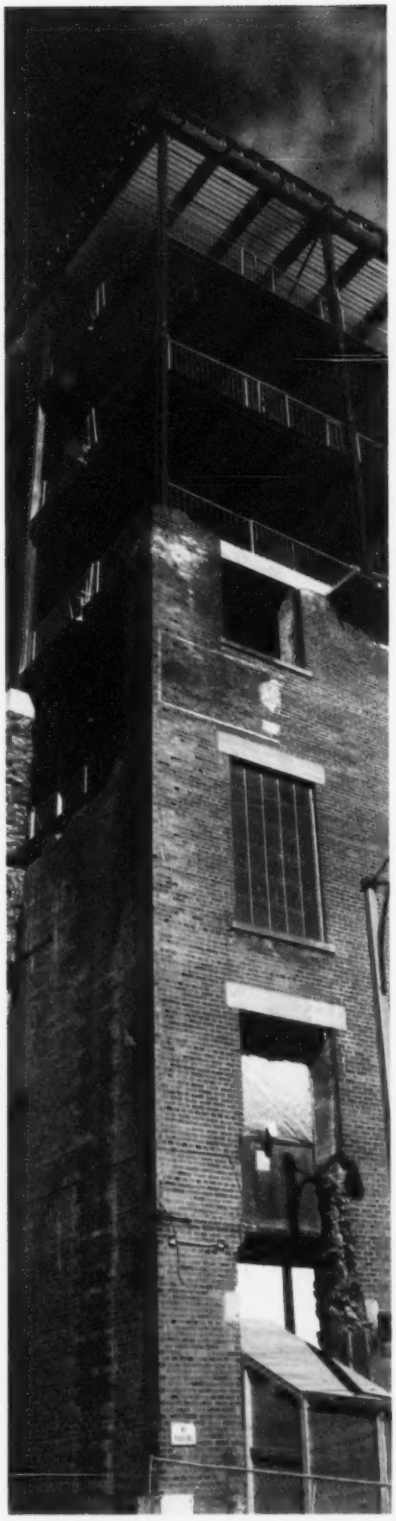


Sources: Statistics Canada and Ontario Ministry of Infrastructure

The post-war era

Between the end of the Second World War in 1945 and the early 1970s, Ontario experienced rapid growth in its economy and population. Infrastructure investments both responded to urgent new needs, triggered especially by the baby boom, and made up for earlier shortfalls caused by the war and the Great Depression.

Public policy decisions during this period triggered the creation of new infrastructure, such as social housing, and also shifted existing infrastructure to public ownership. An example of the latter is the introduction of universal health care in the 1960s, which ultimately resulted in provincial responsibility for hospitals and other health care infrastructure.



This almost three-decade-long infrastructure boom essentially created the core of Ontario's current public infrastructure. It included, for example, many elementary and secondary schools still in use, eleven new universities and the community college system, the two main lines of the Toronto subway system, key portions of the 400-series highway network, and much of our health care infrastructure.

The era of underinvestment

In the early 1970s, investments in public infrastructure began to fall sharply and remained low for more than two decades, failing to keep pace with either growth in population or gross domestic product. This was in part because government spending had shifted towards other priorities. Economic conditions provided another reason: for example, the oil shocks of the 1970s and inflationary pressures of the 1980s both resulted in deferred investments in infrastructure.

These decades of neglect significantly eroded the quality of public infrastructure and its capacity to meet everyday economic and social needs. By the end of the last century, Ontario, like the country as a whole, had accumulated a significant infrastructure deficit, which was threatening its economic competitiveness and standard of living.

The era of renewal

In the past seven years, investments in infrastructure have reached levels not seen since the 1950s and 1960s. In particular, the government increased infrastructure investment significantly starting in 2004. In 2005, it released ReNew Ontario, a long-term infrastructure plan designed to invest $30 billion over five years. ReNew Ontario also aimed to introduce long-term predictability and sustainability to public infrastructure planning.

ReNew Ontario was completed in 2008–09, a year ahead of schedule. It resulted in major investments in key infrastructure sectors, including transportation, health, and education.

The government has also changed the way infrastructure projects are planned, financed, and managed. Starting in 2004, it took steps to standardize and improve procurement activity, including creating Infrastructure Ontario.

Ontario has also built partnerships to address infrastructure challenges. In response to a global economic downturn, in 2009 the Province collaborated with the federal government, Ontario municipalities, and others to undertake major stimulus spending. Nearly 11,000 stimulus projects were approved and virtually all are expected to be completed by October 31, 2011.

In total, the government has invested $62 billion in infrastructure since 2003. Some 5,500 kilometres of Ontario highways have been built or repaired. Provincial investments have helped to revitalize towns and cities across Ontario. New and renewed hospitals are providing better patient care. These are just some of the ways in which people in Ontario are benefiting from renewal of public infrastructure.

Investment innovations

- An infrastructure ministry was created in 2003 to coordinate provincial infrastructure planning.
- Infrastructure Ontario, which reports to the Minister of Infrastructure, uses alternative financing and procurement (AFP) to leverage private sector expertise to build infrastructure on time and on budget while ensuring public control and ownership. Infrastructure Ontario has brought to market more than 50 projects worth close to $21 billion in capital construction. It is estimated that the completed projects will generate more than $400 million in value-for-money savings compared to traditional procurement.
- Metrolinx is a public transportation agency that is responsible for coordinating, planning, financing, and implementing an integrated transportation network in the Greater Toronto and Hamilton area. It is also responsible for operating the GO Transit network.
- Growth plans with a 25-year time horizon are helping to ensure growth patterns that make the best use of existing infrastructure and the wisest investments in future. Plans have been developed for the Greater Golden Horseshoe area around the west end of Lake Ontario and for northern Ontario.

ReNew Ontario, stimulus, and other accomplishments

Numerous transportation projects undertaken, including an expanded border crossing in Niagara, a new international truck route in Sault Ste. Marie, and new high-occupancy vehicle (HOV) lanes

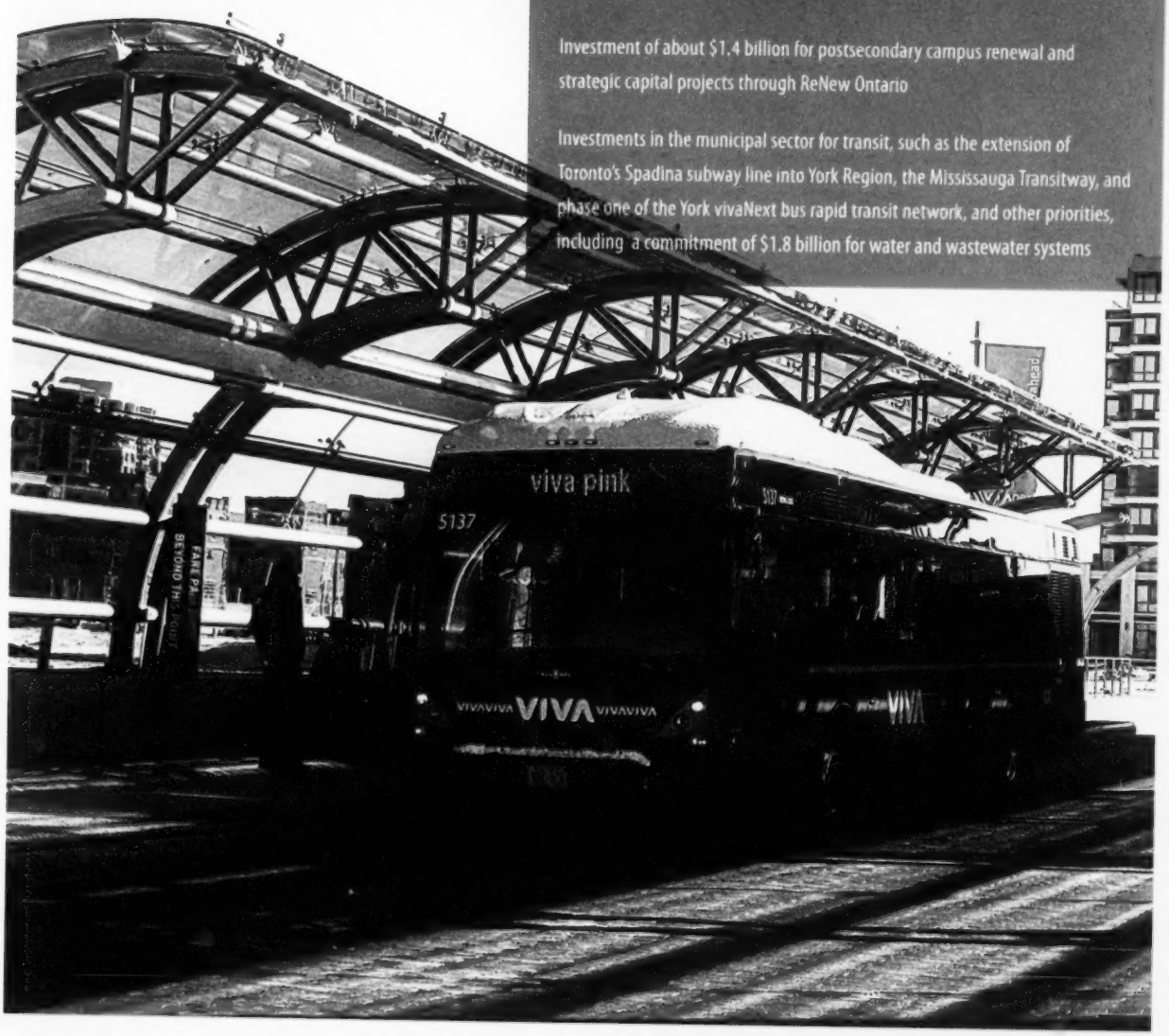
More than 100 major hospital projects complete or in progress

More than 400 new schools built since September 2003

A total of $4.75 billion committed to schools, including $2.25 billion for renewal projects that are completed or under way in more than 3,000 schools through Good Places to Learn

Investment of about $1.4 billion for postsecondary campus renewal and strategic capital projects through ReNew Ontario

Investments in the municipal sector for transit, such as the extension of Toronto's Spadina subway line into York Region, the Mississauga Transitway, and phase one of the York vivaNext bus rapid transit network, and other priorities, including a commitment of $1.8 billion for water and wastewater systems



Ontario's future

In the next decade, infrastructure investments will support the continued growth of Ontario's economy. This plan will also address several far-reaching trends that will affect infrastructure needs:

- A more global and service-oriented economy combined with slower growth in the size of the workforce;
- A larger, older, and more urbanized population;
- The effects of climate change; and
- The shift towards more technologically advanced infrastructure.

The sections below look in more detail at each of these trends.

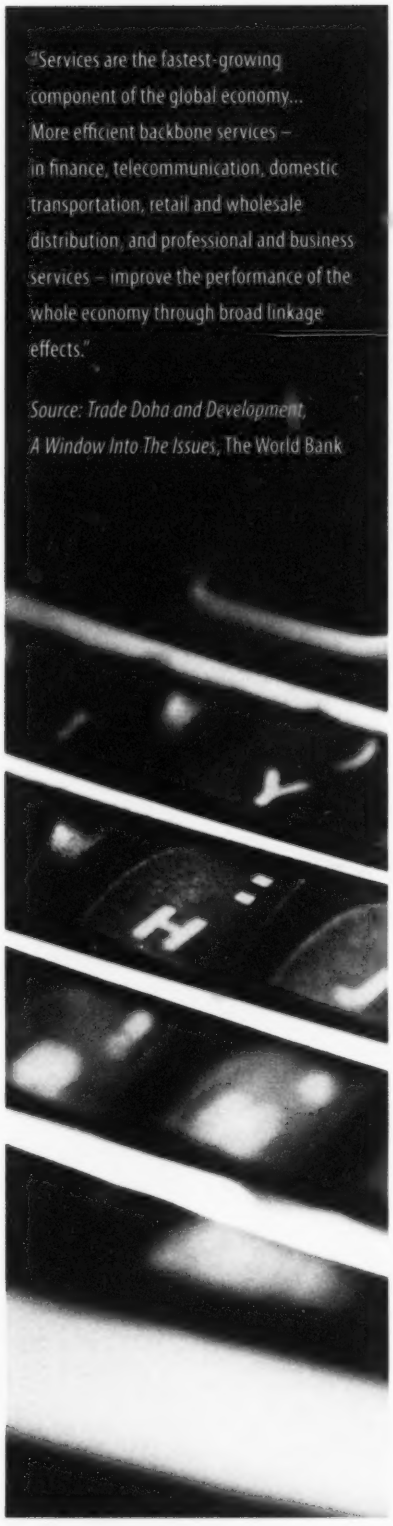
A changing economy and slower workforce growth

The need to remain economically competitive was identified as a key priority by many who provided their views as the plan was developed. To help Ontario compete, infrastructure decisions must take into account three broad trends affecting the economy: diversification of export markets, a shift towards greater employment in services, and slower growth in the working-age population.

- While the United States will continue to be the largest market for Ontario's goods and services, exports to other countries and trade with the rest of Canada are both growing. Ontario will need to invest in a transportation system that expedites the shipment of goods to the United States, other international markets, and the rest of Canada. This will require a focus on highways, border crossings, and links to shipping ports and airports.

"...public capital made a larger impact on labour productivity in the 2000s than in other decades, accounting for roughly a quarter of labour productivity growth in the 2000s, compared with only 8 per cent in the 1990s."

Source: Economic Impact of Public Infrastructure in Ontario, Conference Board of Canada, 2010



- The economy is increasingly driven by services. In 1987, the services sector employed 68 per cent of Ontario's workforce; by 2010, its share had risen to 79 per cent. The Province's long-term economic outlook notes that this trend is expected to continue. Such service sectors as warehousing and retailing also benefit from investments in highways. Investments in other types of infrastructure, for example province-wide, high-speed broadband, can help boost the value added by the service sector.

Innovation depends on digital infrastructure

Digital technology, a key to innovation, is helping to invent new industries and reinvent such traditional ones as advanced manufacturing. Strong digital infrastructure positions Ontario as an attractive place to start and grow businesses.

While the private sector will continue to be the major provider of digital infrastructure over the next decade, Ontario will ensure that investments by both the private and public sectors are linked and leveraged to ensure robust networks. This will be fundamental to economic growth and the delivery of high-quality public services.

Ontario's digital infrastructure plan will focus on creating the right regulatory and investment climate, leveraging existing assets, making modest, strategic investments where warranted, and continuing to create partnerships to increase Ontario's competitiveness. It will be developed with industry, other orders of government, and the broader public sector.

How the plan benefits Ontario's communities and regions

Ontario will continue to support cities and towns by:

- Expanding public transit where strong growth in demand is forecast
- Adding highway capacity, mainly in the 400 series, as warranted by growth and demand
- Helping deal with pressures on schools, colleges, and universities in high-demand areas
- Exploring innovative approaches to mitigating the environmental impact of urbanization and climate change on watersheds
- Leaving a legacy of revitalized communities and recreational facilities in southern Ontario from the 2015 Pan/Parapan American Games

And rural and northern communities by:

- Providing investment and other supports to smaller communities that lack the capacity to address water-related infrastructure needs on their own
- Making strategic investments in broadband in less densely populated areas to leverage investments by the private sector and other orders of government
- Working with the federal government, Aboriginal peoples, and other partners to identify strategic infrastructure needs to support the Growth Plan for Northern Ontario, 2011
- Developing a northern transportation strategy as envisioned in the Growth Plan
- Expanding sections of the Trans-Canada Highway corridors to increase capacity and improve safety
- Ensuring that investment in infrastructure aligns with regional tourism priorities and provincial tourism strategies

- The age structure of Ontario's population means the size of the workforce will grow more slowly over the next decade. If each worker's output remains unchanged, a more slowly growing workforce will mean a slower-growing economy. Infrastructure can help fill this gap. Its value in raising productivity is well documented: for example, the Conference Board of Canada estimates that 12 per cent of Ontario's labour productivity gains over the last 30 years came from investments in roads, bridges, colleges, universities, research facilities, and other public infrastructure. Over the more recent past, when investments were higher, infrastructure's contribution was twice that historic level.

A larger, older, and more urbanized population

Ontario's population is expected to grow by 1.2 per cent a year on average, reaching 15.1 million by 2021, an addition of 1.7 million people, according to Ontario's long-term demographic forecast. This will increase the demand for public infrastructure, as will trends in age composition and location of growth.

- By 2021, the number of people aged 65 and over in Ontario will have increased by more than 800,000, with implications for health care and transportation infrastructure in particular, as well as accessibility.
- The steady pace of urbanization will continue. Two-thirds of Ontario's population lives in the Greater Golden Horseshoe. Over the next decade, more than 80 per cent of the province's population growth will occur in this region. This will create new opportunities for efficient investments in transit and other public infrastructure.

The effects of climate change

Climate change is affecting our infrastructure. The Insurance Bureau of Canada has reported that flooding is now the most common homeowner insurance claim, pointing to aging sewers that are more likely to back up during severe rain as a contributing factor. As well, increasing climate variability is already affecting how ice roads in the North are built.

Changes to Ontario's climate expose the province's infrastructure to conditions that it was not originally designed to withstand. The Canadian Council of Professional Engineers has noted that while engineers have traditionally relied on historical weather data to design long-lasting, safe, and reliable infrastructure, they must now develop new design and operational practices to withstand the changing climate, including the extreme events it brings.

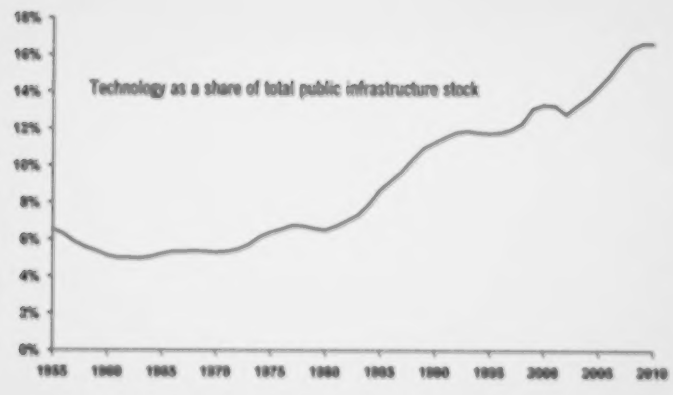
The shift towards more technological infrastructure

Finally, investments in infrastructure across Ontario's public sector are increasingly directed at technology. The delivery of health care, education, and other services relies more and more on this shift. For example, the proportion of technology in the education sector's infrastructure has risen from 2.5 per cent in 1978 to more than 11 per cent in 2010. Access to state-of-the-art laboratory equipment, online research databases, and leading-edge technology all help to prepare students for the demands of modern careers.

Similarly, the number of magnetic resonance imaging (MRI) machines in Ontario's hospitals has grown from fewer than 60 to almost 80 over the past several years. Because an MRI scan is one of the best ways to see into the human body from outside, its use leads to faster diagnosis and treatment without the costs and risks of more invasive procedures.

The Province released *Climate Ready: Ontario's Adaptation Strategy and Action Plan* in April 2011. The plan highlights the steps Ontario is taking over the next four years to ensure that it is prepared for the challenges that changing weather patterns will bring. Storms that caused flooding in downtown Peterborough in 2002 and 2004, for example, resulted in more than $100 million in damage. The plan creates a vision and framework for collaboration across ministries and with external partners.

CHART 4 **The Increasing Importance of Technology in Delivering Public Services**



Sources: Statistics Canada and Ontario Ministry of Infrastructure

In these ways and others, technology is helping the public sector to meet the evolving needs of people across Ontario. In considering technology's role, it is important to bear in mind that while it can improve service and reduce operating costs, it also generally needs replacing or upgrading more often than traditional infrastructure.

TWO

THE INFRASTRUCTURE PLAN

KEY STRATEGIES FOR ONTARIO'S NEEDS

In developing priorities and a framework for decisions in this plan, the government relied on three over-arching themes that respond to the trends discussed in Part One.

Investing for future prosperity

Investments in such core economic infrastructure as highways, transit, postsecondary education, and broadband connectivity are essential to competitiveness. For that reason, this plan focuses heavily on investments in these areas. By helping the Ontario economy to become more productive, expand, and create the good jobs of the future, infrastructure investments will help to ensure a higher standard of living for all Ontarians.

Aligning public services with demographic change

The government is also committed to ensuring that its infrastructure is properly aligned with the lifetime needs of people in Ontario. This plan focuses on helping to ensure that areas attracting new residents will be able to meet increasing demand for services, while responding to changes in the population's age structure overall. In particular, this plan looks at the implications for health care and other infrastructure as the share of people aged 65 and older increases in the next decade.

Accessibility and an aging population

About 1.85 million people in Ontario, or roughly one in seven, have a disability. With the passage of the *Accessibility for Ontarians with Disabilities Act, 2005*, Ontario became the first jurisdiction in Canada to develop, implement, and enforce mandatory accessibility standards.

Over the next 20 years, as the population ages, the number of Ontarians with a disability will rise to one in five. As people age, their need for accessibility may rise, because of loss of mobility and agility, as well as diminished eyesight and hearing.

Through the act and related accessibility standards, the Province's goal is to ensure accessibility for all Ontarians, including the elderly, by 2025.

Ensuring good stewardship

The Province and its partners have a responsibility to act as good stewards, so that Ontario's infrastructure provides the services needed today and in the decades ahead. Good stewardship rests above all on proper asset management, because very often the best investments are in repairs and rehabilitation, not replacement.

Good stewardship also entails looking forward to manage emerging issues, such as climate change and the need for accessibility and environmental sustainability, so that infrastructure remains able to meet public needs through the 21st century. Part Three of this plan provides more details on how asset management planning and stewardship will evolve in Ontario over the coming decade.

A. TRANSPORTATION

Accelerating public transit

The Province strongly supports public transit for several reasons:

- Transit takes cars off our roads. Investments in GO Transit, for example, allowed the system to carry 13.1 million more riders in 2009–10 than in 2003–04. On a typical weekday, GO Transit takes the equivalent of more than 90,000 cars off the road.
- It can also cut commute times. For example, an express GO train takes less than 25 minutes to travel from Clarkson station in Mississauga to Union Station in downtown Toronto. The same trip by car can take twice as long during rush hour.
- Car ownership represents a large share of household transportation costs. Transit options that reduce dependence on the automobile can provide significant savings.
- The use of transit reduces environmental impacts. Every one per cent increase in the share of transit versus travel by car would reduce the emission of greenhouse gases by about 25,000 tonnes a year.
- A position statement of the Heart and Stroke Foundation of Ontario noted that people have been found to be healthier when they live close to public transit and in higher-density neighbourhoods.

Transit accomplishments

The Province has invested more than $10.8 billion to support transit since 2003, including:

- Providing $1.6 billion to municipalities across Ontario since 2004 for their transit systems through a dedicated share of the provincial gas tax
- Funding of $870 million to help extend Toronto's Spadina subway line into York Region
- Providing funding for the Mississauga Transitway, the Brampton Züm project, and the York Viva bus rapid transit network
- Providing support to Hamilton to study potential rapid transit on two major corridors
- Making investments of roughly $4.7 billion in GO Transit to:
  - Introduce 12-car trains to carry an additional 300 passengers on each trip on the Lakeshore and Milton lines
  - Create new grade separations and track upgrades to GO corridors to help reduce delays and allow more service
  - Resume GO rail service to Barrie and build a new station
  - Extend GO bus service to Peterborough

The demand for transit is expected to increase in the years ahead:

- By 2021, roughly 10.3 million people are expected to live in the Greater Golden Horseshoe area, up by about 1.4 million from the current level. Without robust and effective public transit systems, rising commute times and road congestion will hamper economic growth and quality of life. In its regional transportation plan released in 2008, Metrolinx estimated that average daily commute times in the Greater Toronto and Hamilton area would increase from 82 minutes to 109 minutes in 25 years if there were no significant new regional transit investments.

- The importance of Toronto's Union Station as a key transportation hub that brings people from surrounding communities into the downtown will increase, with its morning peak-hour passenger traffic forecast to quadruple over the next 25 years. Travel across and between surrounding regions will also rise, putting pressure on areas with limited or no public transit at present.
- Other rapidly growing parts of the province, such as Ottawa and Waterloo Region, are planning for significant ridership growth that will require transit upgrades and expansions.
- The growth in the number of seniors, who use transit more frequently, is likely to increase demand throughout Ontario, including smaller centres.

Ontarians on the move

In the Greater Toronto and Hamilton area alone, 12 public transit systems provide more than a million bus, subway, and commuter train trips every day. Some 150,000 of those trips use the provincially owned GO Transit train and bus network, which connects with the municipalities' systems in the region. OC Transpo, which serves Ottawa, provides more than 200,000 trips a day, many of them using a dedicated transitway. The Grand River Transit system, which serves Kitchener-Waterloo and Cambridge, delivers more than 40,000 daily trips across the region.

Fleet sizes, selected Ontario municipalities — Table 1

	Regular buses	Specialized vehicles	Rail vehicles	Fleet
Toronto	1,733	401	955	3,089
Ottawa	1,020	91	3	1,114
York Region	434	78	0	512
London	186	27	0	213
Windsor	104	12	0	116
Waterloo Region	218	29	0	247

Union Station: a key transit hub

Together with the City of Toronto and the federal government, the Province is increasing the capacity of Union Station through revitalization projects. The Province is also helping to fund the construction of a second subway platform at Union Subway Station, and Metrolinx is restoring the "train shed" roof over the train tracks at the station. The investment by all partners will total more than $750 million.

Linking transit in southern Ontario

The Big Move is a regional transportation plan developed by Metrolinx to improve transportation networks throughout the Greater Toronto and Hamilton area.

In addition to Metrolinx projects, the Province has supported the Mississauga Transitway, Brampton Züm, and Durham Highway 2 bus rapid transit projects.

The Mississauga Transitway will provide service along Highway 403, Eastgate Parkway, and Eglinton Avenue between Winston Churchill and Renforth, and connect with transit systems in Toronto as well as other communities in the western part of the Greater Toronto Area. The project is expected to be in service by spring 2013.

Brampton's Züm system will provide service along three major corridors in the city and connect with transit systems in Mississauga, York Region, and Toronto. The first line began service in 2010, and another two are expected to be up and running by fall 2012.

Metrolinx is moving forward with the implementation of the York Viva bus rapid transit project and the Eglinton-Scarborough Crosstown light rail transit line running about 25 kilometres from Black Creek Drive to Scarborough Centre. The line will be largely underground from Black Creek to Kennedy, then partially elevated from Kennedy to Scarborough Centre.

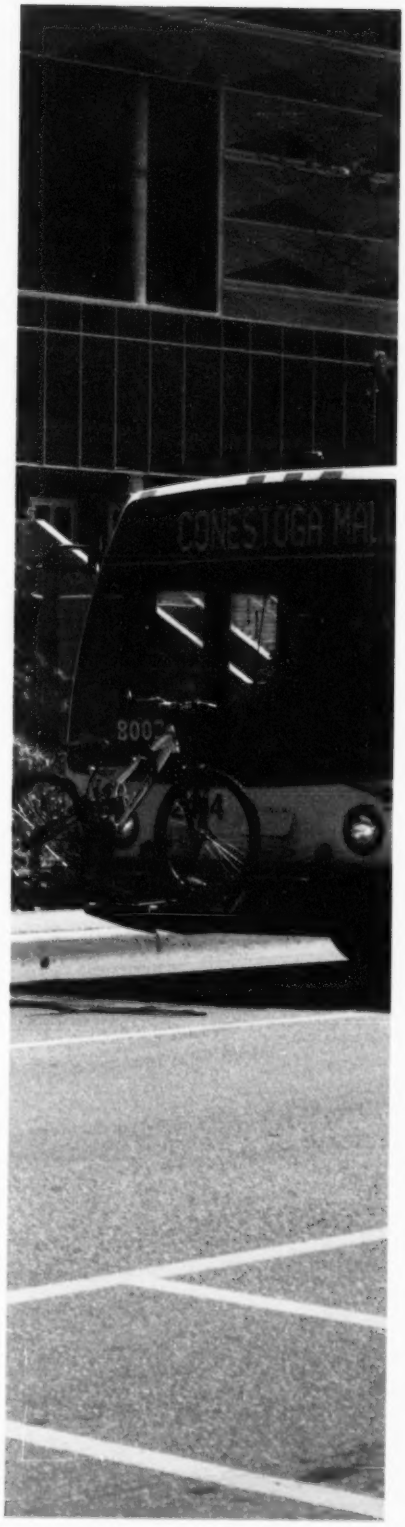
GO, a division of Metrolinx, is making service improvements to continue increasing ridership, with a target of more than 100 million trips by 2020–21. Its aim is two-way, all-day service on the majority of its rail network. GO also expects the share of its riders travelling outside the downtown Toronto core to increase from 12 to 16 per cent.

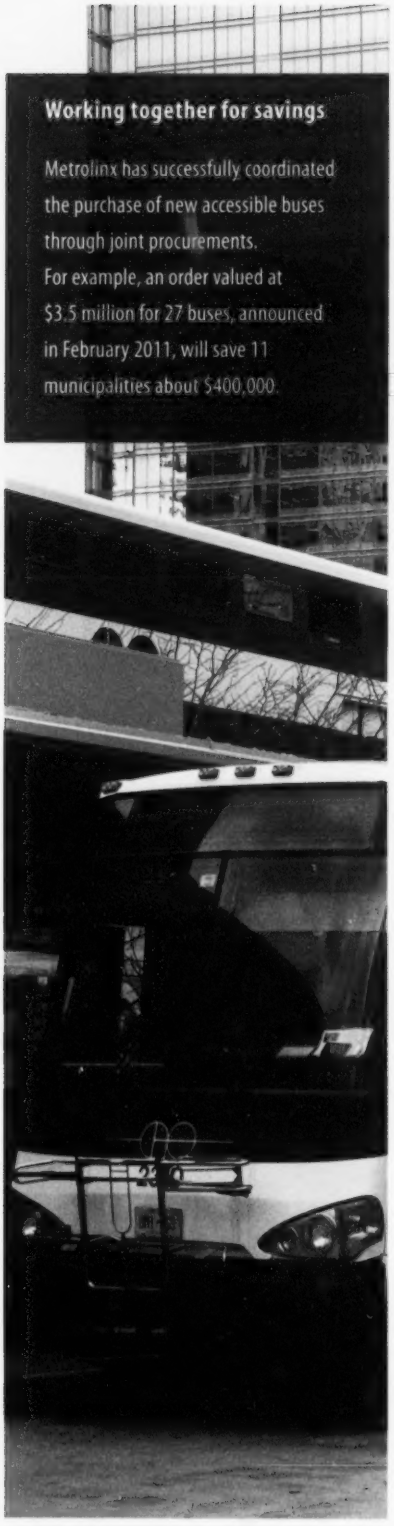
GO will work with its partners to provide integrated transit services, with the PRESTO fare card playing a key role. PRESTO makes it easier to travel seamlessly across different transit systems in the Greater Toronto and Hamilton area with the tap of just one card.

Since 2003, the Province has invested heavily in transit, including the GO Transit system, and has made major commitments going forward:

- It has committed more than $9 billion to regional rapid transit projects in Toronto and York Region, such as the Eglinton-Scarborough Crosstown light rail transit line and York Viva bus rapid transit. In addition, a passenger rail service linking Toronto Union Station to Pearson International Airport will be in service in time for the 2015 Pan/Parapan American Games.
- The Province has committed $600 million in funding to support rapid transit in the City of Ottawa. The project involves converting more than 12 kilometres of the existing transitway to light rail transit, with a portion of the route to be tunnelled under downtown Ottawa.
- In Waterloo Region, the Province has committed $300 million to support a proposed plan to create a roughly 35-kilometre-long rapid transit corridor. The corridor would better connect the cities of Waterloo, Kitchener, and Cambridge, linking Grand River Transit to the GO system.
- The dedicated portion of gas tax revenues will continue to provide municipalities across Ontario with long-term, sustainable support for new transit equipment, fleet maintenance, and expanded operations.

In addition, the Province has also brought institutional innovation to the sector with the creation of its Metrolinx agency to improve coordination and integration of transportation across the Greater Golden Horseshoe.





Working together for savings

Metrolinx has successfully coordinated the purchase of new accessible buses through joint procurements. For example, an order valued at $3.5 million for 27 buses, announced in February 2011, will save 11 municipalities about $400,000.

Moving forward

Given the demand for transit, the Province expects to invest significantly in this sector over the next decade. Specifically, it intends to:

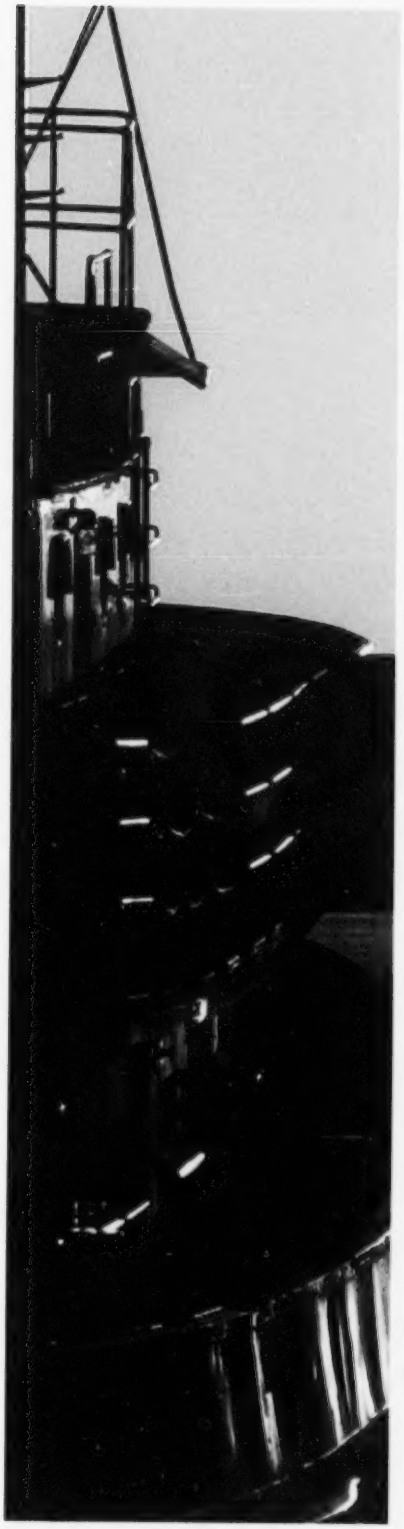
- Coordinate and support a significant expansion of transit in the urban centres designated in the 2006 Growth Plan for the Greater Golden Horseshoe, including Waterloo Region, as well as in Ottawa and mid-sized cities across the province where significant growth in demand is forecast.
- Work with Metrolinx and the area's transit systems to continue to invest in the priorities identified in the Big Move, in line with the fiscal capacity of the Province, with the aim of creating a truly regional transit system in the Greater Toronto and Hamilton area. This will also help move towards GO Transit's goal of increasing annual ridership from 55.6 million in 2009–10 to more than 100 million trips by 2020–21.
- Expand the role of Infrastructure Ontario to use the alternative financing and procurement (AFP) model in the transit sector in coordination with Metrolinx. Part Three of this plan provides more details on procurement.
- Acquire key transit assets, such as GO rail corridors, as the fiscal situation permits.
- Move forward on electrification of the GO system as the fiscal situation permits and where the benefits justify the cost.
- Build more options for active transportation, including walking and cycling, into transportation plans and public transit systems.

Highways, bridges, airports, and ferries

The government will continue to invest in the capacity and quality of the province's highways, bridges, and other transportation infrastructure to support economic and social goals. Ontario's businesses rely heavily on this network to get their products and services to market on time, especially in an increasingly competitive economy. Highway infrastructure is also critical to the delivery of effective public transit, particularly in highly urbanized areas. In places with no public transit, roads and highways are generally the only way to get people to work and other destinations.

The need to keep traffic moving on the 400-series highways will be key because they comprise a critical part of Ontario's highway network. As the backbone of the entire system, the Highway 401 corridor alone carries 437,000 vehicles a day and two-thirds of the freight trucked between Ontario and the United States, making it one of the busiest sections of highway in North America. With economic growth, the risk of bottlenecks will increase.

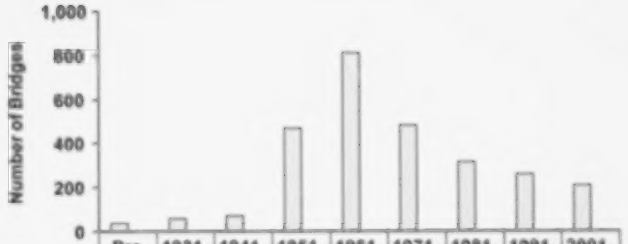
A major challenge in the coming decade will be much heavier demand in the province's fastest-growing regions. While providing more public transit options will help relieve this challenge, not all the demand can be shifted to public transit. As part of a long-term strategy to improve the efficiency of highways in high-demand areas, the Province has introduced HOV lanes for cars with two or more passengers, as well as for public transit vehicles and inter-city bus carriers. The evidence to date shows that these lanes shorten driving time for all traffic.



The size of Ontario's transportation system calls for wise investments in upkeep and rehabilitation. Well-maintained roads, bridges, culverts, and other structures last longer, saving taxpayer dollars in the long run. They also make travel safer, shorten commute times, and decrease vehicle-repair costs for drivers.

Bridge safety is of special importance. Many of the Province's bridges were built in the 1950s and 1960s, with an expected service life of 60 years. Over the next 10 years, many of these bridges will require rehabilitation or replacement. Highway pavement will also require a significant amount of repair work over the next five years.

CHART 5 **Bridge Building Periods (Age Profile)**



	Pre-1930	1931-1940	1941-1950	1951-1960	1961-1970	1971-1980	1981-1990	1991-2000	2001-2010
Number of Bridges	38	59	74	471	814	484	316	260	208
Per Cent of Total	1%	2%	3%	17%	30%	18%	12%	10%	8%

Sources: Ontario Ministry of Transportation and Ontario Ministry of Infrastructure

For the past several years, the Province has significantly increased funding for its directly owned highways and bridges to increase capacity and meet upkeep needs. Building on the success of its alternative financing and procurement model, it has announced two major AFP highway projects: the Windsor-Essex Parkway and the extension of Highway 407. There will be ongoing need for new and rehabilitated highways, roads, and bridges. Future investments will help meet that need.

The Windsor-Essex Parkway project

The value of the cargo that passes between Windsor and Detroit is the highest for any border crossing in North America, and trade is expected to increase well into the future.

The Windsor-Essex Parkway will improve this busy crossing, linking Highway 401 directly to the U.S. interstate system for the first time. It is expected that construction will take three years and create roughly 12,000 project-related jobs, most of them in the Windsor-Essex region. Work is expected to begin in summer 2011.

The parkway is Ontario's largest highway project at present and one of the largest in Canada. When complete, it is expected to cut every trip through Windsor by close to 20 minutes on average, separating internationally bound vehicles from local traffic. It will replace the existing municipal roadway and its many traffic lights with a new six-lane freeway and local service roads, giving international traffic free-flow access to a new, state-of-the-art gateway.

Because much of the parkway will be below grade, the community will also benefit from improved air quality, reconnection of neighborhoods long divided by the original roadway, 20 kilometres of new trails for pedestrian and cycling use, and more than 300 acres of green space.

This project will be delivered using the AFP model, which provides an incentive to use innovative techniques to complete the project on time and on budget.

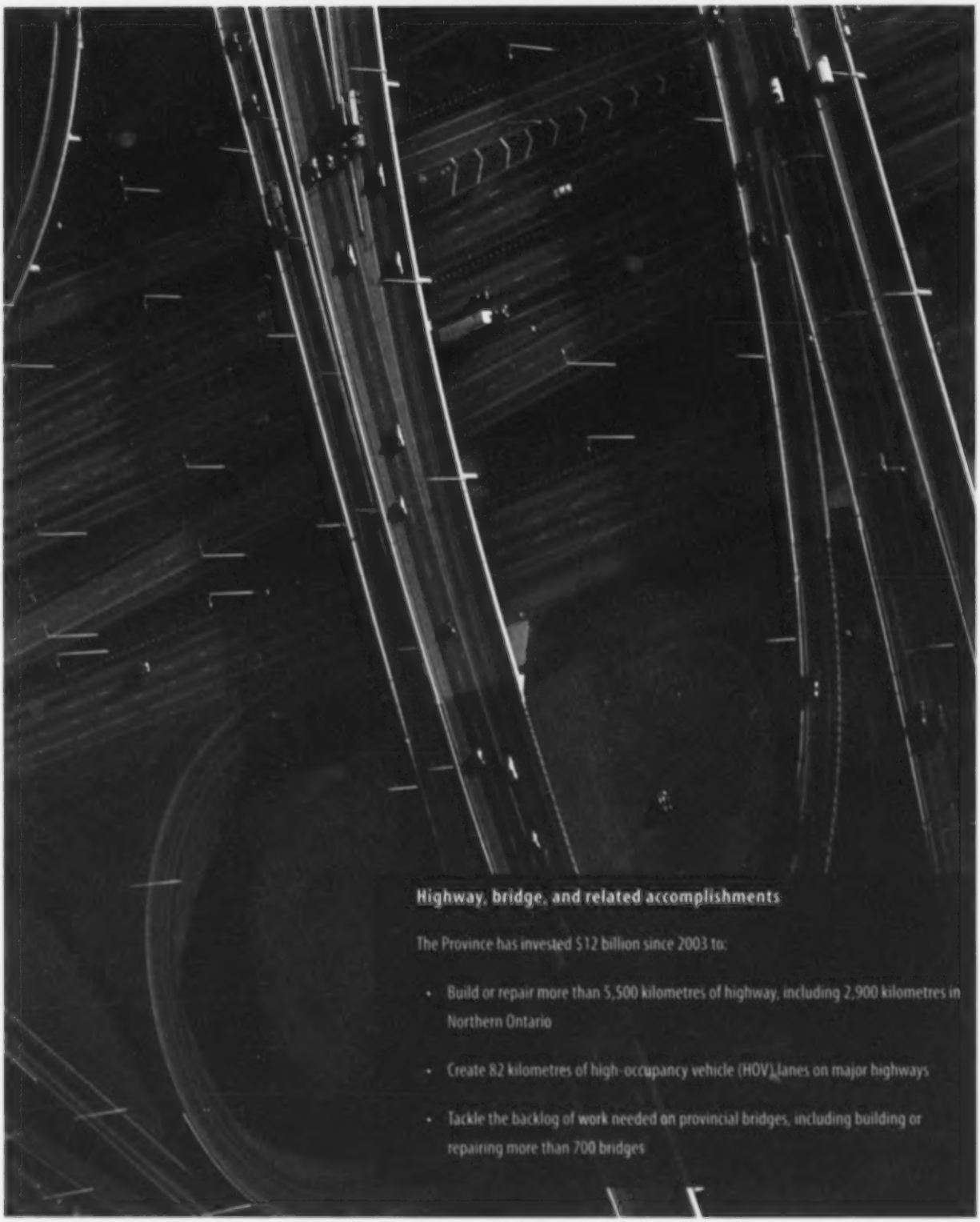
A large and complex network

Directly owned provincial transportation infrastructure includes:

- More than 16,500 kilometres of provincial highway (39,000 if measured by lane-kilometres);
- 2,800 bridges and structures;
- 29 remote airports; and
- Eight ferry services.

The Province also supports the construction of seasonal ice roads to remote communities in the winter.

Together, this infrastructure provides services to an area as large as France and Spain combined and has an estimated replacement value of almost $60 billion.



Highway, bridge, and related accomplishments

The Province has invested $12 billion since 2003 to:

- Build or repair more than 5,500 kilometres of highway, including 2,900 kilometres in Northern Ontario
- Create 82 kilometres of high-occupancy vehicle (HOV) lanes on major highways
- Tackle the backlog of work needed on provincial bridges, including building or repairing more than 700 bridges

Moving forward

Over the next decade, the government will improve Ontario's transportation network, support economic growth, and shorten commute times by:

- Developing a corridor-based approach to investing in additions and expansions to the 400-series and other highways to prevent bottlenecks and handle increasing demand.
- Adding at least 500 centreline-kilometres of highway where warranted by growth and demand, primarily through such major planned projects as:
  - Extending Highway 407 east to Highway 115/35;
  - Building the Windsor-Essex Parkway, which is expected to reduce travel time for each of the 6,500 trucks that cross the Windsor-Detroit border every day by close to 20 minutes on average;
  - Continuing to widen portions of Highway 401 in southwestern Ontario and the Kingston area; and
  - Enhancing Northern Ontario's Trans-Canada Highway corridors by expanding sections of Highways 11, 69, 17, and 11/17 to four lanes to increase capacity, improve safety, and support the Growth Plan for Northern Ontario.
- Continuing the rollout of the long-term HOV strategy, which calls for more than 450 kilometres of lanes along the 400-series highways, including sections in the Greater Golden Horseshoe and Ottawa, by 2031.
- Further developing the multimodal strategy of linking roads and highways with other forms of transportation, such as airports, shipping ports, rail, and border crossings. This will require working with the federal government as well as state and other provincial governments.

Predictable times drive competitiveness

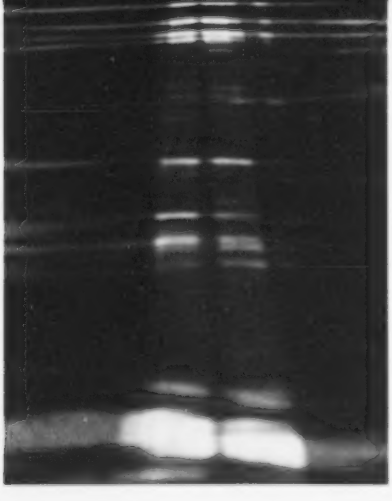
Competitiveness, globalization, and free trade have made fast, reliable shipping time a critical input of production. Today's supply chains are longer and more complex. Over the last two decades, firms have eliminated branch warehouses in favour of centralized distribution networks. Substituting transportation for warehousing reduces the costs of holding inventory — as long as trucks don't get tied up in traffic.

Ontario's automobile and electronics industries, among others, face time-critical parts requirements that depend on deliveries scheduled at precise intervals during the day. To avoid costly downtime, Ontario's highways must support fast and reliable deliveries.

Recycling roads

Reclaimed concrete and asphalt pavement, asphalt with ground rubber from scrap tires, and shredded scrap tires for constructing embankments: these are all ways in which Ontario's road-building reduces environmental impacts by recycling materials. Ontario's Ministry of Transportation is also a leader in the use of cold-in-place recycling, a technique that recycles a road's existing pavement right on the spot. Such approaches reduce greenhouse gas emissions and the demand for non-renewable resources. For example, compared to traditional paving methods, cold-in-place recycling:

- emits 50 per cent fewer greenhouse gases;
- consumes 62 per cent fewer aggregates; and
- costs 40 to 50 per cent less than conventional treatments.



- The Continental Gateway Strategy, which will enhance the flow of goods in Quebec and Ontario and with the United States, represents a significant multimodal project.
- The Growth Plan for Northern Ontario also calls for development of a northern multimodal strategy.
- The Province will continue to work with the federal government and Quebec to assess the feasibility of high-speed rail in the Windsor to Quebec City corridor.

- Using innovative construction and repair techniques to reduce environmental impact, lower costs, and minimize impacts on users.
- Working to add more transit-supportive elements to the highway network and prepare for such new technologies as alternative fuel vehicles.
- Using metrics like those in Table 2 to track progress towards specific goals for the state of repair of highways and bridges.

Provincial highway network state-of-good-repair targets — Table 2

Highway network	Pavement condition	Bridge condition
Northern Highways	67% "Good"	85% "Good"
Southern Highways	67% "Good"	85% "Good"

Note: "Good" condition denotes that an asset will not require major rehabilitative work over the next five years

B. EDUCATION AND INNOVATION

A strong education system and the capacity for leading-edge research and innovation are the foundations of a successful economy in the 21st century. Ontario has invested significantly in schools, universities, colleges, and research facilities to help form a well-educated workforce. Strategic investments will continue, both to support key priorities and help meet demand.

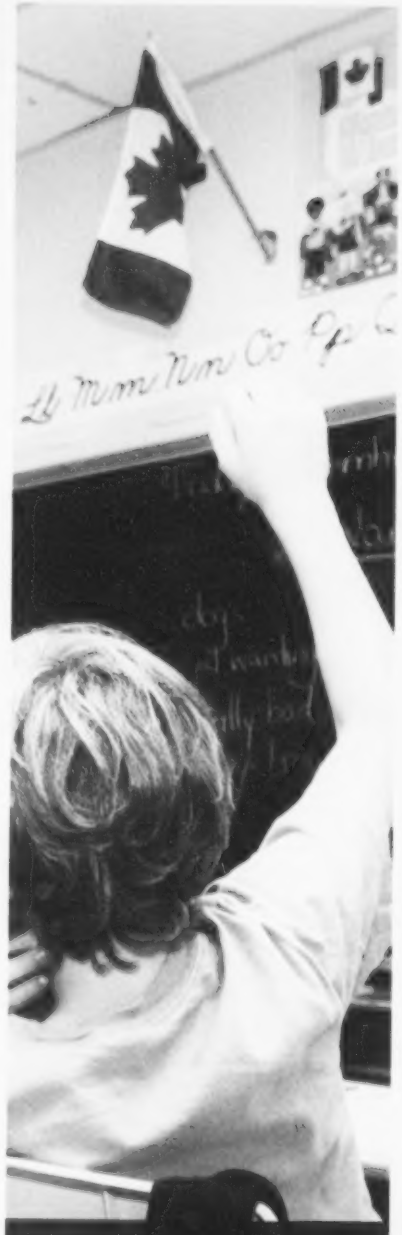
Education and innovation accomplishments

The Province has invested significantly in schools since 2003:

- Full-day kindergarten will be offered at close to 800 elementary schools by September 2011
- 230,000 new spaces for elementary and secondary students were created with the building of more than 400 new schools, with over 120 more on the way
- More than 19,000 school renewal projects completed or under way through the Good Places to Learn program

For the postsecondary sector, Ontario has:

- Provided about $1.4 billion for postsecondary campus renewal and strategic capital projects through ReNew Ontario
- Through the Knowledge Infrastructure Program, committed $1.5 billion with the federal government towards 49 college and university projects
- Helped to create more than 36,000 new postsecondary spaces through the Knowledge Infrastructure Program and other provincial stimulus investments
- To date, committed almost $600 million towards more than 1,200 approved projects under the Ontario Research Fund – Research Infrastructure program, leveraging $1.4 billion from other partners



School board infrastructure

Ontario's 72 school boards operate almost 5,000 school facilities with a replacement value of roughly $48 billion. Currently, there are about two million students.

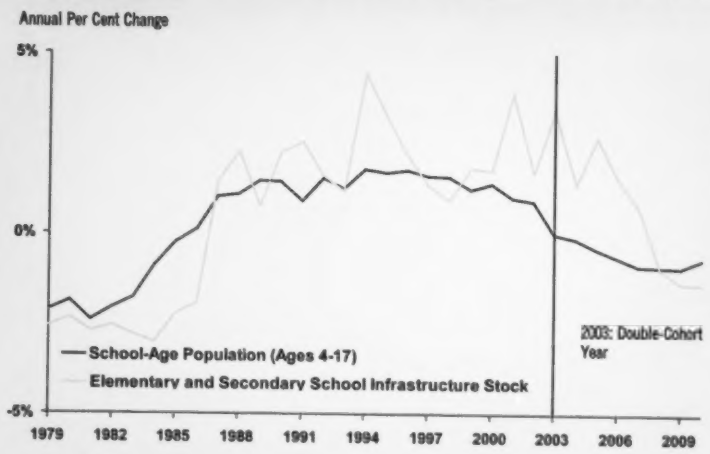
Elementary and secondary education

The government is currently targeting funding to provide the infrastructure to allow children across Ontario to be enrolled in full-day kindergarten. Full-day kindergarten began in September 2010 at almost 600 schools. By September 2014, it will be available at all elementary schools across the province.

The full-day kindergarten program follows other major province-wide initiatives of the Ministry of Education to improve Ontario's schools. For example, Ontario's Good Places to Learn program, launched in 2005, provided capital funding to school boards to build additional space to support the government's goal of smaller primary class sizes. Under the Primary Class Size initiative, boards successfully met provincial targets beginning in 2008–09: 90 per cent of primary classes made up of 20 or fewer students and no primary classes with more than 23 students.

Underlying such major programs are demographic trends that also determine the need for elementary and secondary school facilities. As Chart 6 shows, despite year-to-year variations that largely reflect specific initiatives, investments in schools have roughly tracked changes in the number of children and young adults aged four to 17.

CHART 6 **Population Growth Drives Elementary and Secondary School Infrastructure Stock**



Sources: Statistics Canada and Ontario Ministry of Infrastructure

Despite a province-wide decline in the school-age population over the past decade, there have been pockets of growth, mainly in the outlying areas of Greater Toronto and Hamilton, where young families are settling. As a result, some schools are now over capacity. Over the next several years, boards in Peel, York, Halton, Ottawa-Carleton, and Waterloo are expected to experience growth in enrolment.

The condition of school facilities is important to parents, students, and school staff. The Province is collecting information on school conditions to help improve decisions around repairs and rehabilitation.

Moving forward

Over the next 10 years, Ontario will work with school boards to:

- Ensure a system of elementary and secondary schools that meets present and future needs.
- Continue capital investment to support underserved French-language rights-holders.
- Base renewal funding decisions on school condition assessments and asset management plans, and work towards setting state-of-good-repair targets. This change will enable school boards to undertake projects to address the backlog of repairs in the most cost-effective way.

Schools and the community

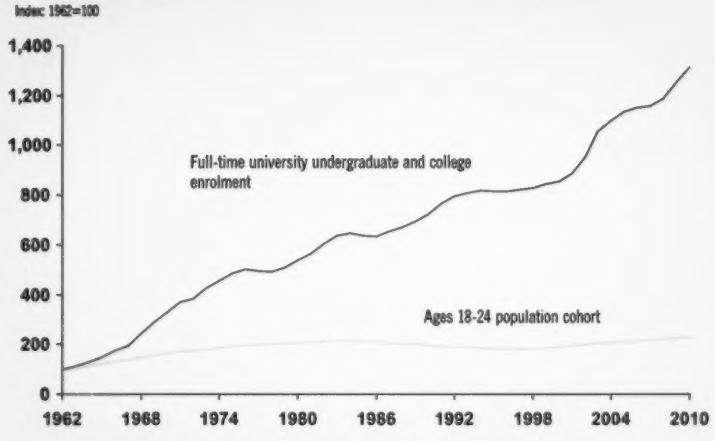
School boards are looking at innovative ways to make the best use of assets, whether by sharing facilities with other boards or public entities or enabling other types of community partnerships. Examples of innovative arrangements include:

- Maple Ridge Elementary School in Ottawa has a community centre attached to the building, which the board owns and leases to the municipality. The shared facilities include a skating rink and tennis courts.
- St. Aloysius Gonzaga Secondary School is a joint project with the city of Mississauga. In addition to the school, the facility houses a community centre with a pool, a municipal library that students use, and a track and field facility used by students and the community. St. Marcellinus Secondary School in Mississauga has a similar arrangement.
- Artscape, a non-profit organization, is turning the Shaw Street School in Toronto, built in 1915 and unused for more than a decade, into a community-based cultural facility. Several arts groups and artists have confirmed their involvement. The repurposed building is expected to be ready in spring 2012.

Universities, colleges, and research

As Chart 7 shows, enrolment at the postsecondary level has been rising steadily over the past decades. Increasing participation rates reflect the growing need for postsecondary education in Ontario's labour force and economy. From 2002–03 to 2010–11, enrolment growth was strong, increasing by 140,000. Growth has been concentrated in universities more than colleges, and in and around the Greater Toronto Area for the most part.

CHART 7 **Increasing Share of Postsecondary-Age Population is Engaging in Higher Learning**

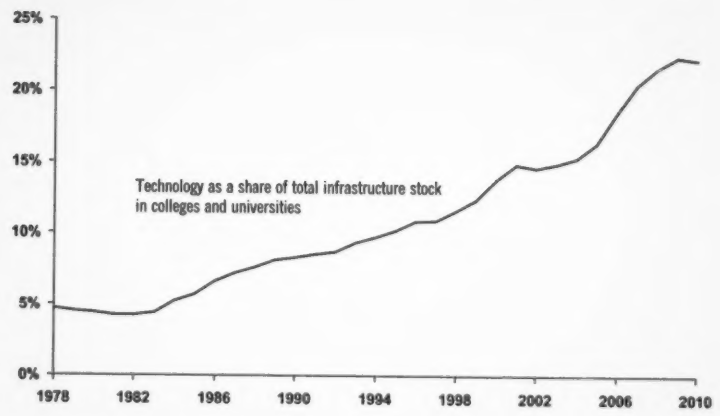


Sources: Statistics Canada, Ontario Ministry of Training, Colleges and Universities, and Ontario Ministry of Infrastructure

Under the Open Ontario initiative, the Province's goal is to raise the postsecondary education attainment rate to 70 per cent. Experts predict that 70 per cent of future jobs will require postsecondary education. To that end, the Province recently announced operating funding to support enrolment growth of more than 60,000 students by 2015–16. The Province will also continue to help more apprentices complete their training. The government's recently released *Putting Students First* plan aims to ensure a sustainable postsecondary system strategically aligned with the needs of students and of Ontario's economy in the years ahead.

College and university infrastructure investments are increasingly driven by technological advances, including laboratory and scientific equipment.

CHART 8 The Increasing Importance of Technology in Colleges and Universities



Sources: Statistics Canada and Ontario Ministry of Infrastructure

The government continues to make significant investments in research capacity at postsecondary institutions through the Research Infrastructure program of the Ontario Research Fund. These investments include the $300 million in research infrastructure funding announced in the *2009 Ontario Budget* to support Ontario institutions in leveraging federal funding for research infrastructure.

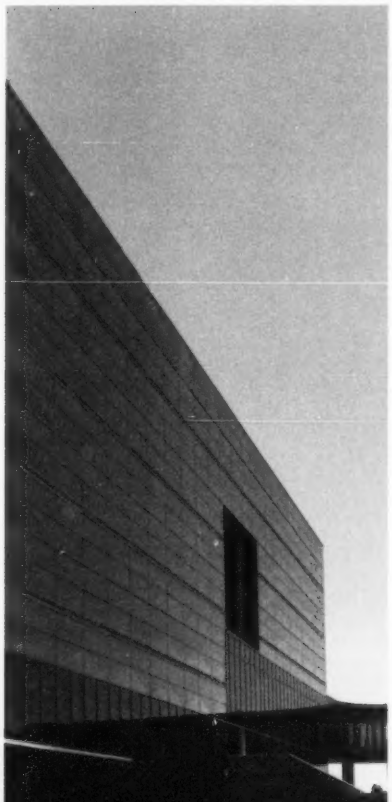
Moving forward

Over the next 10 years, Ontario will work with universities, colleges, and the research community to:

- Ensure that infrastructure investments respond to demand, align with the *Putting Students First* plan, and support the goal of a 70 per cent attainment rate for postsecondary education.

College and university infrastructure

Ontario's public postsecondary system consists of 20 publicly funded universities and 24 colleges of applied arts and technology, operating over 160 campuses in more than 85 communities. The estimated value is about $22 billion.



Updating university space

Provincial funding will help the University of Waterloo renovate a 40-year-old multi-use building for its Faculty of Environment. The project will upgrade and expand climate change and ecology laboratories, teaching facilities, and project development space. The funding will also help to pay for a 54,000-square-foot expansion to house laboratories and lecture rooms, computer workspace, study space, and offices. Through the Knowledge Infrastructure Program, the Province and federal government provided $7.25 million and $6.75 million respectively towards the $20.2 million project.

- Introduce a new satellite campus policy to help to manage growth in the system and give priority to new satellite campuses in areas where growth is expected to be concentrated.
- Develop a more comprehensive funding policy for major capital projects, including procurement approaches and a framework for determining the appropriate provincial share. Procurement is discussed in more detail in Part Three of this plan. The Province will continue to consult with colleges and universities on these elements.
- Emphasize asset management planning, repurposing, and facilities renewal. All colleges and universities will be required to develop asset management plans, which will outline the condition of existing assets and the institution's plan for addressing their renewal needs, as a prerequisite for infrastructure funding. Part Three of this plan discusses asset management in more detail. When seeking funding for expansion, institutions will need to provide a clear rationale for forgoing renewal instead. Repurposing of existing space will be encouraged.
- Continue to invest in research infrastructure.

C. HEALTH CARE

The Province's plan for building a sustainable public health care system is based on delivering good care when and where people need it, and protecting the health system for future generations. Investments in health infrastructure will support those goals and the government's efforts to control health care costs.

Per-capita provincial government health spending, by age group, Ontario, 2008, current dollars — Table 3

Age group	Spending per person ($)[1]	Share of population, 2008 actual (per cent)	Share of population, 2030 projection (per cent)
<1	9,515	1.1	1.0
1–4	1,388	4.4	4.3
5–14	1,124	11.8	11.1
15–44	1,789	42.4	37.3
45–64	2,972	27.0	24.3
65+	10,802	13.5	22.0
65–74	7,147	7.0	11.7
75–84	12,372	4.7	7.4
85+	21,594	1.7	2.9
Total	3,309	100.0	100.0

[1] Weighted average.

Note: Numbers may not add due to rounding

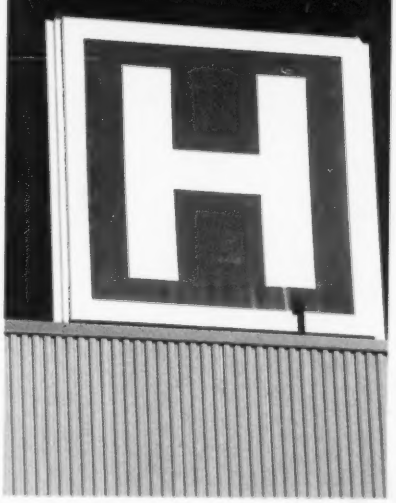
Sources: Canadian Institute for Health Information, Statistics Canada and Ontario Ministry of Finance population projections (Spring 2010)

Health care infrastructure must respond to demographic changes in the coming years. By 2021, the number of people 65-plus in Ontario will have increased by more than 800,000. Table 3 shows that as people age, they account for higher levels of health care spending.

A large and diverse system of health care assets

Across the broader public sector, assets used to deliver health care services and programs are valued at roughly $45 billion and include:

- 155 public hospital corporations that provide acute, chronic, and rehabilitation services through more than 200 sites
- 101 sites operated by community health centres
- 11 public health laboratories that provide testing services and expertise
- More than 600 provincially funded long-term care homes that provide roughly 77,000 beds to residents



To manage costs and give an aging population the right level of care, Ontario is adopting a continuum of care model. This model is suitable for a population with a large share of older people, whose health care needs tend to be more complex than younger people's. It makes available a range of medical and related services and supports, in addition to critical care for patients who need it. Continuum of care will be supported by investments in appropriate health infrastructure, including long-term care beds and chronic care settings.

Co-location and hubs

Bringing together a range of services, some previously available in hospital, and locating all of them in a space in the community is a way of supporting the continuum of care model. Co-located services could include:

- Adult day programs
- Acquired brain injury services
- Ambulatory care clinics
- Community health centres
- Dialysis clinics
- Family health teams
- Hospices

Spaces in the community, for example in a long-term care home, are more flexible and affordable, and often less intimidating to patients, than a hospital setting.

A health hub is similar to co-location, but on a larger scale. A hub might add day surgical programs, an urgent care clinic, and a community health centre to the range of services. Because of the wider range of services offered, it might be located within a hospital.

Both approaches would be based on providing continuity of care, from prevention to treatment and management, in a person-centred and integrated environment with access to a range of services.

Adopting the continuum of care model is key to relieving pressure on hospitals. For example, receiving the right care on an ongoing basis could prevent unnecessary emergency department visits and hospitalizations, especially of older patients.

When an elderly patient must be hospitalized, ensuring the stay is no longer than necessary is also critical. For example, almost one in five patients in acute-care beds do not need the level of resources and services provided in that setting. They are waiting to go to long-term care or a rehabilitation hospital, or to return home, possibly with health care supports. For elderly patients in particular, the unnecessary time spent in acute care poses health and social isolation risks.

Having people in acute care when they should be in another setting also creates backlogs in emergency departments, where critically ill people often remain for extended periods of time on a stretcher because no acute-care beds are available.

As well as affecting health outcomes, the problem skews the allocation of resources. Estimates indicate that moving patients to a more appropriate level of care when they are ready would generate savings across the system. Supporting the continuum of care model calls for creating facilities outside the hospital setting to deliver the health services required by older patients.

At the same time, there will continue to be significant pressure to invest in new or improved hospital infrastructure in areas of population growth.

Living longer

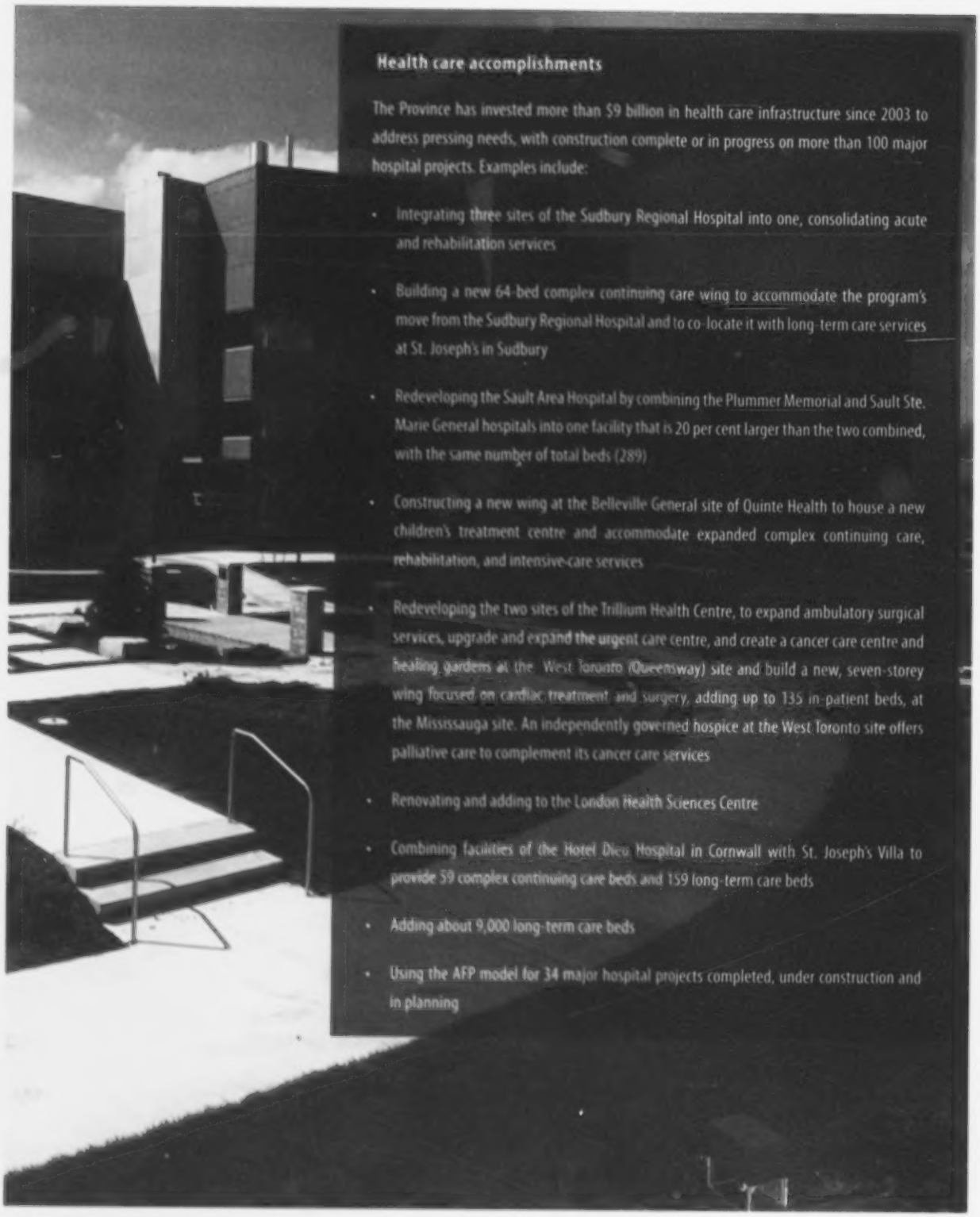
With a child born in Ontario expected to live on average 81.0 years, this province remains second only to British Columbia (at 81.2 years) in life expectancy in Canada. Among G7 countries, Canada as a whole is second only to Japan, where life expectancy is 82.0 years. While life expectancy has been increasing steadily in Ontario since the 1970s, gains have accelerated over the past decade.

Sources: Statistics Canada, Ontario Ministry of Finance

Moving forward

To manage pressure on health care spending and improve patient outcomes, over the next decade Ontario will:

- Support a gradual shift to continuum of care and community-based care models.
- Invest in long-term care beds, while exploring options for healthy aging that could reduce this need over time.
- Invest in three to five major hospital expansions and redevelopment projects each year, subject to fiscal capacity.
- Expand access to electronic health records. Progress has already been made on this goal and several additional major electronic health record systems will be completed by 2015.
- Based on new asset management plans, set performance benchmarks for hospitals and long-term care homes. Part Three of this plan discusses asset management in more detail.
- Encourage the sector to strive for greater efficiencies in the delivery of care, including a move towards a "hub" model where facilities offering different types of care are built together where warranted.
- Involve Infrastructure Ontario in the management and delivery of traditional hospital projects, over time and in consultation with the health sector and building industry. Part Three of this plan discusses the role of Infrastructure Ontario in more detail.



Health care accomplishments

The Province has invested more than $9 billion in health care infrastructure since 2003 to address pressing needs, with construction complete or in progress on more than 100 major hospital projects. Examples include:

- Integrating three sites of the Sudbury Regional Hospital into one, consolidating acute and rehabilitation services
- Building a new 64-bed complex continuing care wing to accommodate the program's move from the Sudbury Regional Hospital and to co-locate it with long-term care services at St. Joseph's in Sudbury
- Redeveloping the Sault Area Hospital by combining the Plummer Memorial and Sault Ste. Marie General hospitals into one facility that is 20 per cent larger than the two combined, with the same number of total beds (289)
- Constructing a new wing at the Belleville General site of Quinte Health to house a new children's treatment centre and accommodate expanded complex continuing care, rehabilitation, and intensive-care services
- Redeveloping the two sites of the Trillium Health Centre, to expand ambulatory surgical services, upgrade and expand the urgent care centre, and create a cancer care centre and healing gardens at the West Toronto (Queensway) site and build a new, seven-storey wing focused on cardiac treatment and surgery, adding up to 335 in-patient beds, at the Mississauga site. An independently governed hospice at the West Toronto site offers palliative care to complement its cancer care services
- Renovating and adding to the London Health Sciences Centre
- Combining facilities of the Hotel Dieu Hospital in Cornwall with St. Joseph's Villa to provide 59 complex continuing care beds and 159 long-term care beds
- Adding about 9,000 long-term care beds
- Using the AFP model for 34 major hospital projects completed, under construction and in planning

D. RURAL AREAS, CITIES, AND REGIONS

The Province's support for Ontario's rural areas, cities, and regions is creating better places to live and work. As well as helping to fund municipal water systems and public transit, the Province is involved in improving access to public services in rural and remote areas, including the North, supporting regional economic growth, revitalizing communities, and meeting housing needs.

Provincial investments are helping to revitalize downtowns and other neighbourhoods in towns and cities across Ontario. In Thunder Bay, for example, a new consolidated courthouse will provide a focal point for ongoing redevelopment of the city's centre. The city of Thunder Bay notes that it is intended to provide an "anchor for revitalization." The downtown south core location of the courthouse is regarded as crucial to advancing Thunder Bay's economic development strategies.

Thunder Bay is one of the five largest cities in Northern Ontario — the others being Greater Sudbury, Sault Ste. Marie, North Bay, and Timmins — that together are home to more than half the northern population of 800,000. The Growth Plan for Northern Ontario, released in March 2011, identifies these cities as regional anchors that are optimal locations for infrastructure to build economic potential and support services.

The growth plan foresees the cities as developing vibrant, mixed-use core areas that attract employment and provide a broad range of amenities. A key pillar of the 25-year plan is revitalizing and linking these and other communities to support growth to help northerners build a resilient and sustainable economy. The growth plan also encourages communities to work together to create a regional approach to development.

Rural, city, and regional accomplishments

Since 2003, Ontario has:

- Supported thousands of projects to upgrade and build new recreational and community facilities across Ontario
- Helped to fund enhanced lighting, green spaces, and new sidewalks to improve city and town streetscapes
- Provided funding to leverage additional partner investments in broadband capacity in eastern and northern Ontario
- Begun the building of facilities throughout southern Ontario to host the 2015 Pan/Parapan American Games
- Attracted private sector investment to transform former industrial sites on Toronto's waterfront
- Drawn up growth plans for the Greater Golden Horseshoe area and northern Ontario, and created a Greenbelt
- Invested $3.4 billion in northern highways and roads, including support for local roads boards, resource access roads, and winter roads and more than $500 million to repair and replace bridges on the provincial highway network
- Provided, through the Northern Ontario Heritage Fund Corporation, more than $380 million for over 500 public infrastructure projects
- Invested, with the federal government, $704 million for rehabilitation and energy retrofits of more than 185,000 social housing units
- Participated in the Canada–Ontario Affordable Housing Program, with more than 14,000 units completed and close to 7,500 units under development since 2005
- Created Infrastructure Ontario's loan program, with the potential to save non-profit and cooperative housing providers more than $25 million

The growth plan calls for coordinating infrastructure planning, land-use planning, and infrastructure investments and, in making decisions about northern Ontario, giving priority to investments that support the plan's policies.

In southern Ontario, the Province is making key investments to host the 2015 Pan/Parapan American Games that will result in major revitalization of athletic and recreational infrastructure across the region. In Toronto, additional resources have been committed to upgrade the West Don Lands waterfront area in time to locate the athletes' village there. After the Games, the athletes' village will become the centrepiece of a mixed-use, sustainable urban community. A significant share of the housing units will be built as affordable housing.

Toronto's waterfront

Initial public sector investments to clean up old industrial sites have helped to kick-start private development around Toronto's waterfront. New neighbourhoods include the West Don Lands and East Bayfront. Plans envision the creation of 40,000 residential spaces, one million square metres of employment space, and 300 hectares of parks and public spaces. The private sector has signed on for investments totalling $1.3 billion in the waterfront areas, signalling the planned transition of the area to local development.

East Bayfront, which comprises 22 hectares of underused land along the edge of Lake Ontario, is becoming a new community of 6,000 new residential units. Two public spaces opened in summer 2010 – Canada's Sugar Beach and Sherbourne Common. As well, the new Corus Quay building, the corporate headquarters for Corus Entertainment, opened in September 2010. George Brown College's new Health Sciences campus, currently under construction, is due to open in September 2012. The redevelopment is being led by Waterfront Toronto, a partnership of the governments of Ontario, Canada, and Toronto.

Social and affordable housing is another municipal infrastructure component. In November 2010, the Ministry of Municipal Affairs and Housing, which provides the framework within which municipal service managers deliver social and affordable housing, released a long-term affordable housing strategy.

The strategy proposes to create a new, outcomes-based accountability framework for the delivery of housing and homelessness services, provide greater flexibility to ensure investments address local needs, and establish key provincial interests, providing a foundation for future housing investments. Under the proposed legislative framework for the new strategy, municipal service managers would draft comprehensive local plans that reflect provincial interests and identify local priorities.

Connecting rural and remote communities – digitally

To help unserved and underserved communities, the Province made early investments in regional digital networks. Since 2007, it has committed roughly an additional $150 million to more than 75 broadband infrastructure projects. This has leveraged significant additional investments from other orders of government and private sector partners by reducing the hurdle to invest. As a result, by March 2012, an estimated 91 per cent of residents of Northern Ontario and 86 per cent of residents in rural Southern Ontario are expected to have access to basic broadband service of at least 1.5 megabits/second.

Major partnership projects currently under way include:

- The Eastern Ontario Regional Network, a scalable network that will help to provide dependable high-speed access to most of the one million residents who live outside the region's major cities; and
- The North-Western Ontario Broadband Expansion initiative, a fibre-optic cable network that will bring broadband connectivity to 26 First Nation communities, as well as Red Lake and Pickle Lake.

Moving forward

Ontario recognizes the ongoing needs of communities and regions. Over the next decade, the Province will:

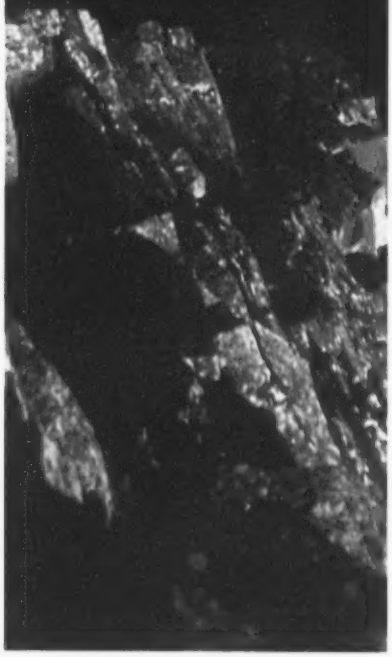
- Explore ways to help municipalities with a stable or declining population meet the unavoidable fixed costs of their infrastructure.

Agricultural advances

The Province's Agricultural Research Institute of Ontario provides a platform for innovation, discovery, and commercialization. Examples of products developed through its 14 research stations and three agricultural colleges include DHA-enhanced milk and OMEGA-3 eggs. To respond to changing technologies and consumer demands, the institute is developing a network of up to five new centres focused on agri-food and rural research. Vineland Research and Innovation Centre, the first, was supported by a $12.5 million investment from the Province. The Province has committed $30 million towards the second, the Elora Livestock, Environment and Energy Complex.

The Ring of Fire

The "Ring of Fire" region covers an area of about 5,000 square kilometres in Ontario's Far North, roughly 500 kilometres northeast of Thunder Bay. It contains significant discoveries of chromite and nickel, as well as discoveries of copper, zinc, gold, and kimberlite. The deposits of chromite, which is used to make stainless steel, are of special interest because virtually all supplies of the mineral currently come from outside North America. Development of this remote area by the private sector will require significant investment in infrastructure, including roads and/or rail lines, and electrical power. A secretariat of the Ministry of Northern Development, Mines and Forestry is coordinating the Province's involvement in the area.



- Continue to assist with higher-order infrastructure needs, such as major transit projects, in urbanized areas.
- Look for continuing opportunities for infrastructure to help revitalize communities.
- Work with the federal government, Aboriginal peoples, and other partners to identify strategic infrastructure needs to support the implementation of the Growth Plan for Northern Ontario.
- Work with municipalities, businesses, and residents to support the implementation of the Growth Plan for the Greater Golden Horseshoe.
- Continue to find ways and means to work with other orders of government to help meet important municipal responsibilities, such as affordable housing that meets local housing needs and complements the Long-Term Affordable Housing Strategy. For example, the Province is working with the federal government on an initiative that would extend federal and provincial funding to help build and renovate affordable housing.

Transportation approaches for the North

Because northerners often need to travel long distances for work, education, and health services, transportation infrastructure is particularly key. Communities are linked to one another and the rest of the world by roads, rail, air, and water. The recently released Growth Plan for Northern Ontario notes that decisions on the North's transportation system must focus on such opportunities as:

- Optimizing the capacity, efficiency, and safety of the existing transportation system;
- Linking major markets, resource development areas, and hub communities;
- Enhancing connectivity among rail, road, marine, and air transportation; and
- Meeting the needs of priority economic sectors and helping to implement regional economic plans.

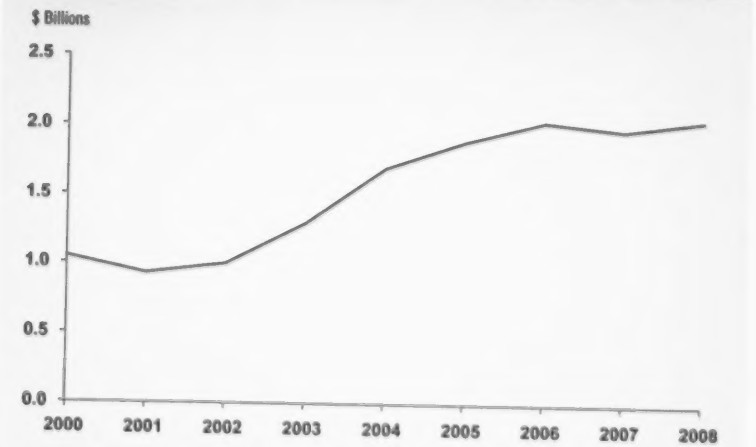
E. WATER AND OTHER ENVIRONMENTAL RESOURCES

The Province is committed to infrastructure investments that support sustainable water systems and that protect our natural landscapes and resources, including the Great Lakes.

Water, wastewater, and stormwater

Ontario's water-related infrastructure, which includes drinking water, wastewater, and stormwater systems, is almost all owned by the province's municipalities, which are also responsible for operation. Between 2003 and 2008, $11 billion was invested in municipal water systems, the bulk from municipalities' own resources.

CHART 9 Capital Investment in Municipal Water/Wastewater Infrastructure



Sources: Financial Information Return, Ontario Ministry of Municipal Affairs and Housing, and Ontario Ministry of Infrastructure

Further investment will be needed. For example, many systems are at, or close to, the end of their useful lives. In addition, a number face the need to meet the demands of population growth in their service areas. Climate change will have a significant impact on stormwater systems and will also create pressures on drinking water sources and wastewater systems.

Water sector accomplishments

Since 2003, Ontario's accomplishments in the municipal water, wastewater, and stormwater sector include:

- Passage of the *Water Opportunities Act, 2010*, to improve innovation and water conservation
- Committing roughly $1.8 billion in grants to help almost 300 municipalities with more than 750 water and wastewater infrastructure projects
- Committing almost $1.7 billion in loans through Infrastructure Ontario
- Providing $20 million in operating funding through OSWAP 1&2 to help 166 smaller communities
- Committing $50 million to help smaller communities improve water conservation and efficiency through OSWAP 3

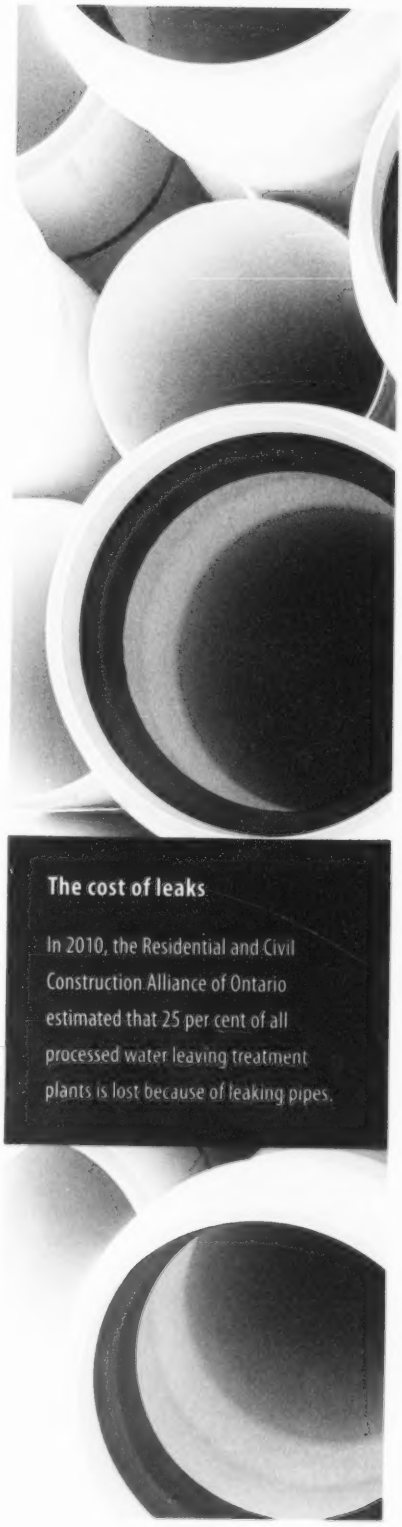
The bulk of Ontario's population is served by the very large drinking water and wastewater systems located in major urban centres. Conversely, there are many systems serving smaller communities. As Table 4 shows, for example, more than 80 per cent of drinking water systems serve fewer than 10,000 people. These smaller systems are generally more costly to operate for each household served, which is why the Province has helped address their needs through the Ontario Small Waterworks Assistance Program (OSWAP) and other investments.

A few large water systems serve most of the population		Table 4
Number of people served	Number of systems	Percentage of systems
1 – 500	232	34%
501 – 1000	91	13%
1,001 – 1,500	46	7%
1,501 – 2,500	54	8%
2,501 – 5,000	77	11%
5,001 – 7,000	24	4%
7,001 – 10,000	23	3%
10,001 – 100,000	91	13%
More than 100,000	39	6%
Total	677	100%

Source: Ontario Ministry of the Environment

Loss of water from leaky pipes and inefficiencies in water and wastewater treatment facilities represent major costs. Leaks are easier to pinpoint and fix when operators can measure where water is flowing throughout the distribution system.

The *Water Opportunities Act, 2010,* allows the government to pass regulations that would require the preparation of municipal water sustainability plans and the establishment of performance measures and targets for municipal water, wastewater, and stormwater systems. It also provides the authority for actions to encourage the more efficient use of water.



The cost of leaks

In 2010, the Residential and Civil Construction Alliance of Ontario estimated that 25 per cent of all processed water leaving treatment plants is lost because of leaking pipes.

Small and green are beautiful — and less expensive

New infrastructure is costly. Some communities are finding innovative ways to reduce costs. For example:

- The City of Guelph deferred about $33 million in equipment and other costs by optimizing or "fine-tuning" its wastewater treatment plant.
- In only six years, York Region's Water for Tomorrow conservation program has deferred an estimated $40 million in new infrastructure at a cost of only $10 million.

"Green infrastructure" is another way to reduce the need for costly, large-scale solutions. It uses natural processes like infiltration and evaporation, often on a small scale close to the source, to reduce the burden on built systems. Green infrastructure is in use across Ontario:

- Several municipalities, including York Region and Hamilton, offer subsidies to encourage the use of rain barrels to collect water from downspouts. Guelph's program goes further by offering a $2,000 rebate for large-capacity harvesting systems.
- Two provincial buildings, the Ontario Science Centre in Toronto and Garden City Tower in St. Catharines, have green roofs. Work is expected to be completed within a year on a green roof at the Ottawa Courthouse.
- Ontario's Ministry of Transportation is partnering with Trees Ontario on the Greening the Right of Way project, which will see some 290,000 trees planted along Ontario's major highways.

As well as saving costs, green infrastructure solutions can have multiple other benefits, including removing undesirable chemicals from stormwater, increasing green space in urban environments, converting carbon dioxide into oxygen, and providing natural habitat.

Moving forward

Over the next 10 years, Ontario will work to ensure the financial and environmental sustainability of municipal water, wastewater, and stormwater systems through activities on several fronts. The Province will:

- Roll out requirements under the *Water Opportunities Act, 2010,* for municipal water sustainability plans and performance measurement and public reporting for water, wastewater, and stormwater systems.
- Work with municipalities to encourage them to make the best use of existing infrastructure before building new capacity, and highlight to Ontarians the benefits of using water more efficiently. This would involve, for example, reducing demand by promoting conservation, tuning systems to ensure they are performing as well as possible, and using green infrastructure.
- Encourage municipalities to work with industry, academia, and other orders of government to demonstrate and implement new and emerging Ontario water and wastewater approaches and technologies.
- Work with smaller communities that lack the capacity to address water-related infrastructure needs on their own. This will include a program to systematically assess the need for financial and other types of support, and develop solutions using the best mix of options.
- Make improved asset and financial management practices, as well as conservation and efficiency, preconditions for provincial infrastructure grants.
- Explore an expanded role for Infrastructure Ontario so that water systems can benefit from its expertise in project management and use of the AFP approach.

- Develop a framework for planning water-related infrastructure on a watershed basis. This will build on the source water protection framework under the *Clean Water Act, 2006*, and will help ensure that strategic, long-term infrastructure decisions are informed at an ecologically significant scale. Work could start in priority watersheds, such as the Grand and Thames Rivers, and would be done in concert with municipalities, Aboriginal peoples, conservation authorities, and other groups.

Ontario will take further steps to determine how wastewater systems can deal with emerging threats, including the environmental and health impacts of chemicals in urban wastewater streams and the need to adapt to climate change.

- Urbanization will put an increasing strain on wastewater infrastructure and the water bodies that assimilate effluent. Ontario will explore innovative approaches for reclaiming water, recovering nutrients, and generating energy from wastewater to mitigate urbanization impacts.

Restoring and protecting the natural landscape

The Province will continue to lead numerous environmental cleanup activities over the next 10 years and to invest in environmental assets.

Environmental cleanup is often linked to past industrial activities. Under the authority of the *Environmental Protection Act*, the Province can order those responsible for the contamination to clean up the site. Once an order is issued, the Province works to ensure those responsible for violations are held accountable. If required, the Province may step in to undertake the cleanup, recovering the costs where possible.

Restoration and protection accomplishments

Since 2003, the Province has invested roughly $950 million to manage Ontario's natural resources and protect the environment. Key projects include:

- working to clean up the Mid-Canada Line radar sites
- helping to de-list Great Lakes Areas of Concern, including most recently Wheatley Harbour on Lake Erie
- cleaning up the Pottersburg site in London, Ontario
- preparing for the cleanup of the Deloro Mine site
- working with the owners of land across the province on which old oil and gas wells are located, to reduce risks to sources of drinking water
- investing to maintain environmental assets, including more than 29,000 engineering installations, such as dams and drinking water systems in provincial parks, and more than 100,000 kilometres of forest roads and bridges

Cleanup and management of contaminated sites in Ontario is undertaken through various programs in several ministries. Projects range from one-time, small-scale initiatives to multi-year, large-scale investments.

The need for cleanup is not limited to land-based locations. The international Great Lakes Water Quality Agreement provides for the listing of Areas of Concern where environmental quality has degraded to such an extent that uses like drinking water, swimming, and wildlife habitat are compromised. Ontario and other governments are working to remove areas from the list. Examples of Ontario's investments in remediation include the Bay of Quinte, Thunder Bay, and the St. Marys, Niagara, and Detroit rivers.

Finally, the Province is responsible for a very large and diversified portfolio of environmental assets that are essential to the delivery of key public services, as well as the protection of Ontario's natural resources.

They include parks, forest access roads, firefighting stations and land and air fleets, dams, fisheries, and research facilities. These assets are located over a wide area and are highly visible and important to Ontarians, especially in rural and northern Ontario.

Moving forward

Over the next 10 years, the Province will:

- Establish a new, one-window approach for environmental cleanup activities, including a new approach to ranking and managing projects. This will involve working over the first years of the plan to consolidate existing cleanup activities and related funding, develop a single inventory of contaminated sites, and create an evidence- and risk-based approach to guide cleanup priorities. This approach will enhance cleanup expertise.
- Implement robust asset management practices to provide guidance on the right investment priorities and ensure funds flow to the assets that need it most, including such structures as dams in light of climate change concerns.
- Continue to protect the Great Lakes ecosystems, develop sustainable economic and recreational opportunities, and increase public awareness of the lakes.
- Promote joint action with federal and municipal governments to align policies and funding.

F. TOURISM AND CULTURE

The Province has a leadership role to play in helping to ensure that communities are welcoming to visitors.

Tourism and culture accomplishments

Ontario and its visitors are benefiting from investments in tourism and cultural agencies and attractions made since 2003. These include:

- Close to $60 million towards the development of the new Ottawa Convention Centre, which is expected to boost tourism in the capital region
- More than $134 million for cultural renaissance projects such as the transformation of the Art Gallery of Ontario, Royal Ontario Museum, National Ballet School, Royal Conservatory of Music, and Canadian Opera Company
- Revitalization of the St. Lawrence Parks Commission (Upper Canada Village, Fort Henry, and Crysler's Farm Battlefield sites) and redevelopment of facilities at Huronia Historical Parks
- Provincial funding to help municipalities and regions develop their cultural offerings and tourism potential: for example, $24 million towards the Niagara Centre for the Performing Arts and the Cambridge Performing Arts Complex.

Tourism and cultural facilities preserve Ontario's culture and history for the province's own residents and build its appeal to tourists. Provincial parks and the natural landscape also attract tourists, as well as benefiting Ontarians.

Strong provincial investment in culture and tourism facilities in recent years has helped institutions to attract the visitors whose admission fees represent an important revenue source.

Tourism's economic role

Ontario's tourism industry provides close to 300,000 direct and indirect jobs across the province, is the leading provider of employment for young people, and has receipts of more than $20 billion a year. Regional tourism organizations, the hospitality industry, and private sector operators of attractions play key roles in attracting tourists to Ontario and creating benefits for their local economies. Other ministries, such as Natural Resources, which operates provincial parks, are also involved. The Ministry of Transportation supports the sector through investments in highways and transit.

Over the next decade, Ontarians will continue to be the main users of the province's tourism and culture infrastructure. Although the United States will remain a significant source of visitors, new growth is expected to come mainly from overseas. The number of people travelling worldwide for tourism and other reasons is expected to double to 1.6 billion by 2020, attributable mostly to China and other emerging nations.

In 2009, the Province released a comprehensive review called *Discovering Ontario: A Report on the Future of Tourism*. In response to one of the report's recommendations, the Ministry of Tourism and Culture in 2010 established 13 new regional tourism organizations that are independent, industry-led, and not-for-profit. Each organization is responsible for identifying priority projects that would benefit from infrastructure investment.

The report also recommended that the Province identify high-potential destinations and undertake a campaign to target investors, provide selective incentives, and make partnerships with government easier.

As a result of this recommendation, the Ministry is developing a 10-year tourism investment strategy to stimulate private sector investment in major new tourism developments. Investments in infrastructure are likely to be guided by this overarching strategy.

Moving forward

To reap greater benefit from investments in tourism and cultural attractions over the next decade, Ontario will:

- Coordinate tourism-related infrastructure investments across government, ensuring that investments align with regional tourism priorities and strategies.

- Continue to invest in capital repair and rehabilitation at tourism and cultural agencies and attractions to address renovations, building code upgrades, health and safety improvements, and statutory and regulatory compliance.
- Ensure that government agencies and attractions focus on greater financial self-sustainability as a goal for future capital investments and identify opportunities to increase private sector and philanthropic contributions.

The 2015 Games

The Pan/Parapan American Games showcase athletes from the Americas and Caribbean and are the world's third largest international multi-sport event. The Games will take place at more than 40 venues across southern Ontario, centred on the Greater Toronto and Hamilton area. Hosting the Games is expected to:

- Create 15,000 jobs in construction and Games operations
- Attract 250,000 tourists
- Bring 10,000 athletes and team officials to Ontario
- Build and train a team of more than 20,000 volunteers — a valuable foundation for future events and community-building
- Inspire all Ontarians by highlighting the value of sport and the health benefits of active living
- Showcase Ontario's unique multicultural community.

Beyond that, a key benefit for the region will be the creation of a solid legacy of sports and recreational facilities.

Revitalizing Ontario Place

Since its opening in 1971, Ontario Place has continued to draw visitors to Toronto's waterfront for recreation and entertainment. Given its age and changes in the tourism industry, however, the facility needs a new direction to achieve its potential as a premiere destination. The Ontario Place Corporation, an agency of the province, has sought out ideas from around the world for a revitalization strategy. The Province and the agency are working on developing options for the future of Ontario Place, and how it would be financed, including the potential for a partnership with the private sector.

G. SOCIAL INFRASTRUCTURE

A range of government programs and services helps ensure all Ontarians have the resources and tools to achieve a better quality of life and to take part more fully in society.

Social infrastructure accomplishments

The Province has invested more than $570 million in capital funding in the social sector since 2003 to:

- Increase the capacity of shelters for women fleeing domestic violence by adding beds to existing shelters and building new ones
- Redevelop four children's treatment centres
- Invest in about 1,000 projects to improve social service agencies' facilities
- Support community-based options, like family and group homes and independent living, so that people with developmental disabilities no longer live in ministry-operated facilities
- Commit to modernize information systems for court-ordered support orders, social assistance services, and child protection services
- Build four new secure custody/detention facilities dedicated to youth justice services and expand an existing one

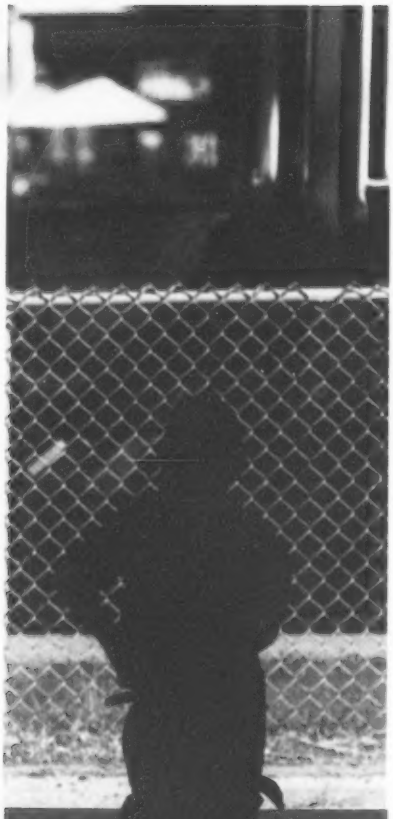
Programs and services are provided by some 1,870 community-based transfer payment agencies funded by the Ministry of Children and Youth Services and the Ministry of Community and Social Services. Examples of infrastructure in the sector include shelters, children's aid societies, youth detention facilities and probation offices, treatment centres for children with complex conditions, facilities for early childhood development and people with special needs, and offices and other meeting places. Affordable housing, another important part of social infrastructure, is discussed in Section D.

The government has also identified poverty reduction as a priority because all Ontarians should have the opportunity to be at their best. This includes ensuring that the Province's infrastructure helps to provide strong, healthy, and inclusive communities for Ontarians to live, work, and play.

The new *Poverty Reduction Act, 2009,* requires a provincial strategy, to be renewed at least every five years, and annual reporting on progress. As part of the poverty reduction strategy, the government has set a target of reducing the number of children living in poverty by 25 per cent over five years. This strategy will inform much of the work in the sector over the next several years. For example, the social service ministries are developing initiatives to transform and improve child welfare, developmental services, and children's mental health. Such initiatives will help identify infrastructure priorities where possible.

Several other factors create a need for infrastructure investments in this sector:

- While emergency shelters provide short-term relief to women fleeing domestic violence, the transition to independent life may need additional support. One concern is that the length of time spent in a shelter is increasing and now averages 27 days. This may be because of limited availability of affordable, transitional, and second-stage housing. As a result, several shelters are over capacity, with long waiting lists.
- Another concern in the sector is the increasing number of adults with developmental disabilities, medical problems, or both, who entered children's residential services early in their lives and are still living there because of lack of capacity in adult services.



A network to protect children

Child protection services are provided by the 53 children's aid societies in Ontario, which serve to protect children who are experiencing or at risk of abuse or neglect, to supervise and provide for the children in care, and to place children for adoption.

The Child Protection Information Network will be a single information system for all the children's aid societies provided through a province-wide database. It will facilitate the sharing of information across the societies, ensuring greater consistency. This information system is expected to be completed by 2015.

- Because many of the sector's programs and services are delivered over the long term and through numerous agencies, information management is critical to ensure better outcomes. The next decade will see an increased focus on using technology to integrate information, manage risks, and increase efficiency.

Making Ontario accessible

People with disabilities regularly face barriers that prevent them from working, travelling in, and enjoying their communities. Under the *Accessibility for Ontarians with Disabilities Act, 2005*, the government is developing five accessibility standards to break down these barriers so that people of all ages and abilities can more easily live, work, and travel throughout the province. Ontario's infrastructure will need to reflect these standards as they continue to be introduced.

The first standard to be implemented under the act — ensuring accessible customer service — is already in place for Ontario's broader public sector.

Three additional standards were recently approved for information and communications, employment, and transportation. The final standard, related to the built environment, is currently under development. The built environment standard would reduce physical barriers for people with disabilities, both inside buildings and outdoors.

Making the province accessible by 2025 will help Ontario tap into the economic power of thousands of customers and visitors with disabilities and harness a larger, more diverse labour pool.

Moving forward

Working with agencies and municipalities over the next 10 years, the Province will:

- Align infrastructure investments with innovative programs, services, and supports aimed at reducing poverty and enhancing outcomes.
- Support the creation of community "hubs," which could include a range of services located together.
- Help women fleeing domestic violence move from shelters into affordable long-term housing, contributing to greater availability of much-needed shelter space.
- Invest in bringing together disparate information sources and systems to provide better service throughout the sector.
- Continue to undertake building condition assessments to set priorities for renewal of the facilities of community-based agencies and organizations.
- In support of the 2025 accessibility goal, require all entities seeking provincial infrastructure funding for new buildings or major expansions/renovations to demonstrate how the funding will prevent or remove barriers and improve the level of accessibility where feasible.

H. JUSTICE

The justice sector comprises numerous roles — policing, investigating, hearing and resolving court cases, sentencing, and incarcerating those convicted of crimes. Reflecting these roles:

- The Province is responsible for the Ontario Provincial Police (OPP), which provides policing services to municipalities on a contract basis as well as carrying out province-wide activities.
- It also administers most of the civil and criminal courts in Ontario. Those facing criminal charges who are remanded in custody before the case is resolved are held in a provincial detention centre.
- Convicted adult offenders who receive sentences of less than two years enter a provincial correctional facility, while longer sentences are served in the federal penitentiary system.

Justice accomplishments

Since 2003, Ontario has improved the justice system with:

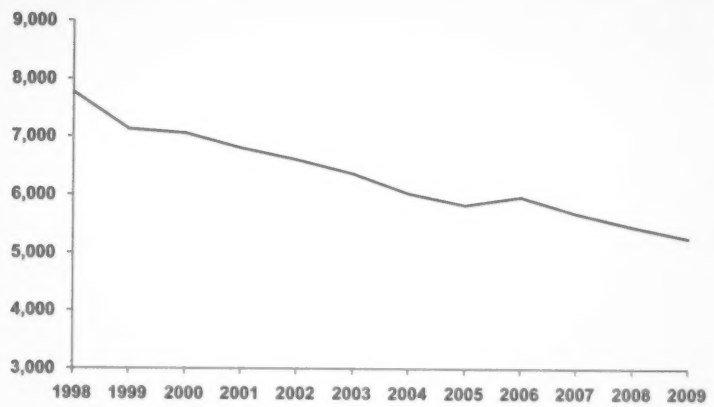
- A new Durham Region Courthouse in Oshawa consolidating services from eight different locations
- The Waterloo Region Consolidated Courthouse, Thunder Bay Consolidated Courthouse, Toronto South Detention Centre, South West Detention Centre, and Forensic Services and Coroner's Complex, which are all under construction or about to start
- An 18-project initiative to modernize OPP facilities, with a number of sites under construction
- Procurement under way for the St. Thomas and Quinte consolidated courthouses
- Widespread use of AFP approach for justice infrastructure

From the provincial perspective, two ministries manage most of Ontario's justice-related infrastructure: the Attorney General, for courts; and Community Safety and Correctional Services, for the OPP and correctional facilities for adults.

Crime rates in Ontario have declined for several years, reflecting a number of factors. Through better collaboration among all justice partners, Ontario is working to create healthier neighbourhoods with better law enforcement and targeted investments to help reduce crime. The Province is supporting the fight against gun and gang violence, for example, by ensuring that police and crown attorneys have the resources they need to bring criminals to justice.

Turning to the future, over the next 20 years the size of the population aged 18 to 34 is projected to rise only slightly, from 3.1 million in 2011 to 3.4 million by 2031, but will decline as a share of the total population.

CHART 10 **Total Reported Crime Incidents per 100,000 Population**



Sources: Statistics Canada and Ontario Ministry of Infrastructure

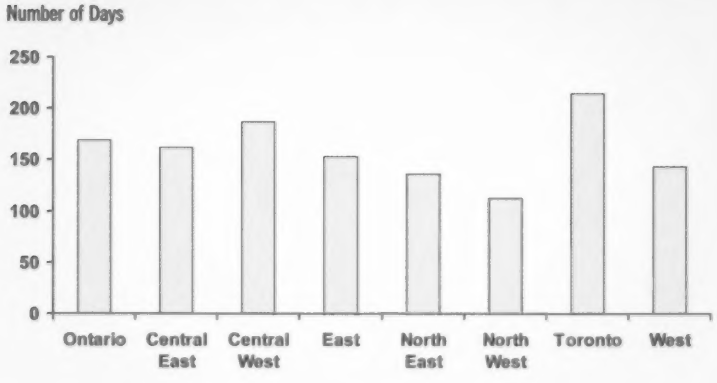
This trend, in conjunction with crime-prevention programs, is expected to result in the continued decline of crime rates over time.

Other factors play important roles in determining the need for justice-related infrastructure. Over the next 10 years, for example, more municipalities are expected to contract with the OPP for policing service, in an effort to reduce costs. This would create an investment need because the Province is responsible for providing OPP infrastructure.

Several reforms are under way to reduce pressure on courthouse and detention centre infrastructure throughout the province. Through the Justice on Target initiative, for example, participants in the justice system are working together to reduce the number of unnecessary appearances and days to disposition.

Civil justice reforms that began to take effect in January 2010 have made it easier, faster, and less expensive to resolve disputes, while family justice reforms have simplified the steps involved for those cases that must go to court.

CHART 11 Average Days to Disposition (Criminal Cases, 2010)*



*Net of Bench Warrant Days
Sources: Ontario Ministry of the Attorney General and Ontario Ministry of Infrastructure

Localized population growth, however, will result in courtroom pressures in some areas, as will other factors like the increasing complexity of some types of cases. Some new courtrooms will need to be added for both criminal and civil cases.

In justice, as in other sectors, increased use of technology could help improve service, lower costs, and reduce pressures on infrastructure needs. Ontario is already adopting technology in the justice sector with those goals in mind. There are opportunities to consider increasing the use of technology. For example, videoconferencing for routine bail and remand hearings could be utilized more extensively. While the intent of such technology would not specifically be to reduce pressures on infrastructure needs, this could be an additional benefit.

Across the province, there are considerable opportunities to bring together services and to deal with aging infrastructure. Providing a range of services close to one another can be very beneficial for streamlining processes and saving time for the courts and people who take part in the justice system.

Moving forward

Working with communities, the judiciary, and municipalities, over the next 10 years the Province will:

- Continue to assess the use of existing assets and, where appropriate, rationalize inefficient assets to save costs. There are many older facilities with high maintenance costs. One goal would be to consolidate services from older facilities into a new facility while maintaining appropriate regional access. Another would be to repair and replace deficient facilities where warranted.
- Continue the approach of strategically locating infrastructure to support a range of justice-related services at shared sites to save costs and improve service, as has been done successfully in other jurisdictions. Before moving ahead, the Province would consult with stakeholders.

I. GOVERNMENT SERVICES

Efficient and streamlined public services located in the right facilities offer greater convenience to citizens and cost savings for government. Achieving these goals depends on innovative technology, a move to a hub-based model of service delivery, and effective real estate planning.

Over the next decade, meeting increasingly high public expectations about the delivery of government services will rely on innovative information technology solutions, especially those provided over the internet.

Government service accomplishments

Since 2003, Ontario has improved services to the public through:

- A new integrated Business Info Line with Industry Canada
- Integrated centres for renewing health cards and driver's licences
- New online publication orders with a money-back service guarantee
- Fully electronic land registration services and searches
- A new data centre in Guelph, procured using the AFP approach
- Investments to upgrade and maintain business-critical IT systems

This kind of technology allows government to function as a more integrated organization that can provide faster, "one-window" access in a variety of more convenient ways than the traditional model involving individual ministries.

ServiceOntario is a one-stop delivery network. More than 95 per cent of Ontarians are within 10 kilometres of one of Ontario's 300 ServiceOntario offices, where they can access driver, vehicle, and health card services in one location. Ontarians can now use their mobile devices to locate the closest service location, find out its hours and the services it offers, and get on-the-spot directions. A number of services, such as obtaining birth, marriage and death certificates, newborn registration, change of home address, and streamlined access to services for businesses are available online, as well.

Meeting public expectations will also rely on a more strategic approach to the kinds of premises that government uses to provide different services. One important area will be the use of "hubs" that offer a range of services to the public. These hubs could bring together a range of services from all orders of government that residents need to access, as well as providing access to sets of services targeted to specific groups.

The government's own accommodation strategy will depend on having the right mix of owned and leased accommodation to deliver services cost-effectively and reduce the accommodation footprint. For services delivered in person or through a kiosk, the focus would be on locations offering the greatest convenience to the public. At present, charges for accommodation are collected by the real estate arm of the government. There is an inadequate connection between charges and local market rates for the same kind of space. Creating such a linkage would encourage better decisions around staff location.

Digital solutions in the public sector

Digital infrastructure enables public sector bodies to use a wide range of services and solutions, such as videoconferencing; satellite mapping of infrastructure networks; and mobile applications to warn commuters of transit delays. It can also provide better health care, for example through enhancing diagnostic and treatment options.

Early investments by the Province helped to fund specialized next-generation networks in the public sector. One example is ORION, the Ontario science, research, and innovation broadband network that connects more than 1.7 million users.

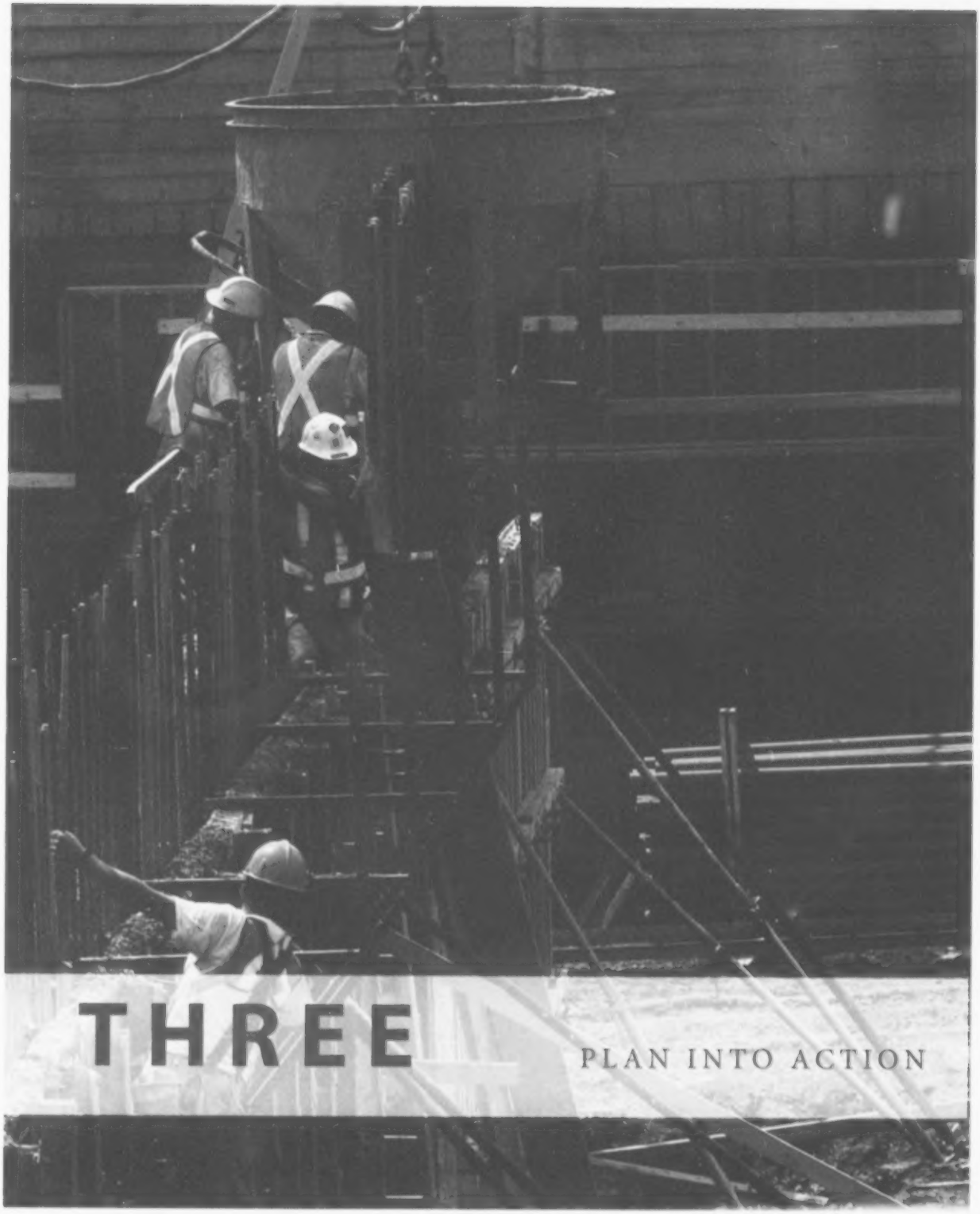
An important element of digital information handling for government is ensuring security and safety of confidential data. The Guelph Data Centre, a LEED-certified facility, is a recent major long-term investment that will safeguard data and systems used to deliver government services.

Moving forward

To give Ontarians better access to government services and provide provincial workers with suitable work spaces, over the next 10 years Ontario will:

- Act on a proposed 10-year vision set out by the Ministry of Government Services to increase efficiency in order to provide cost-effective and personalized customer service for Ontarians. This will require a coordinated strategy to integrate systems, digitally manage information, and enable anywhere, anytime connectivity.
- Explore opportunities to create hubs in which specific groups of people can receive, simply and in one place, access to the range of services they need.

- Use Infrastructure Ontario's expertise in levering private sector investment to allow ServiceOntario to explore opportunities to expand its one-stop delivery network to other lines of business, including delivering services on behalf of other governments through partnerships.
- Put in place a real estate framework that includes moving the amount charged to ministries for accommodation towards market rates, in order to help drive better decisions about how best to allocate space.



THREE

PLAN INTO ACTION

Ontario has been developing a more focused and long-term view of infrastructure investments since 2003. Over the next 10 years, the Province will build on its accomplishments by further improving procurement processes, ensuring wider adoption of asset management planning, supporting Ontario's construction sector, and working with other orders of government and partners to address key infrastructure needs.

Improving procurement

Ontario has one of the most dynamic infrastructure procurement markets in the world. By 2020, according to a recent PricewaterhouseCoopers report, Canada's boom in infrastructure should make this country the fifth largest construction market in the world, up two spots from its current seventh place. Construction activity in Ontario will help drive that improvement. For example, the report cites construction related to the 2015 Pan/Parapan American Games in southern Ontario, as well as major transit projects in Toronto and Ottawa.

PricewaterhouseCoopers notes that new infrastructure projects are expected to continue to attract private investment, as Canada has already established a very successful track record in this area.

In Ontario, the government's innovative infrastructure practices have contributed to this success. Historically, there was little standardization of infrastructure procurement across government, and multiple ministries were involved in often-overlapping activity. Starting in 2004, the Province overhauled its procurement practices as follows:

- First, it created a comprehensive framework, Building a Better Tomorrow, to guide ministries, municipalities, and broader public sector partners in choosing the best options for planning, financing, and procuring public infrastructure.

- Second, it partnered with the private sector. Specifically, it introduced a new procurement model known as alternative financing and procurement, or AFP for short, which was designed to foster infrastructure partnerships with the private sector.
- Third, it created Infrastructure Ontario, a single dedicated infrastructure agency, to manage large, complex projects using the AFP model.

By bringing innovation, consistency, and clarity to procurement, these initiatives set the stage for Ontario's global leadership position. They also provided Ontarians with significant infrastructure benefits in a relatively short period of time. Specifically:

- Infrastructure Ontario has used the AFP model to bring to market more than 50 projects valued at close to $21 billion in capital construction. To date, 16 of the 17 projects completed were delivered within budget.
- Infrastructure Ontario has helped businesses and government to lower their costs in infrastructure projects. It is estimated that the completed projects will generate more than $400 million in value-for-money savings compared to traditional procurement.
- The stable market for AFPs has helped to foster finance, construction, and advisory service specialization in Ontario.

Working with its partners and industry, the government is keen to build on Ontario's competitive advantage in procurement and help realize additional benefits:

- Through the Province's planning and budgeting process, the Ministry of Infrastructure will make recommendations to the government on the procurement method and delivery of all infrastructure projects or groups of infrastructure projects valued at more than $50 million for infrastructure owned by the Province and for hospital and college infrastructure. The criteria for assessing these projects could include scope, complexity, and value-for-money assessment, with input from line ministries and Infrastructure Ontario.
- Infrastructure Ontario will now have a greater role in procuring infrastructure, including engaging in traditional forms of procurement as well as AFPs when appropriate.
- Groups of smaller projects of a similar nature will increasingly be bundled to be delivered by Infrastructure Ontario, either by traditional procurement or through the AFP model. The Province will work with stakeholders to determine when this approach would be most appropriate.
- Recipients of provincial infrastructure project grants in excess of $100 million will consult with Infrastructure Ontario to determine how and whether Infrastructure Ontario can assist with their procurement. This will be phased in during the first years of the plan. The $100 million threshold may be lowered in future years.
- Infrastructure Ontario will take an expanded role in procuring information technology projects and will support implementation of the Growth Plan for Northern Ontario.

The value proposition

In AFP, the proponent must seek private sector financing. The AFP agreement includes penalties if the project is delivered late or over budget. This transfers to the proponent the risks of projects going over budget due to cost increases or missed deadlines. The proponent is in a much better position to manage those risks.

Costs and risks can be further reduced if the project also requires the project developer to include long-term maintenance of a facility in the price. This delivery model, called design-build-finance-maintain, effectively takes a whole life perspective and builds effective asset management directly into the contract. This is a model that Ontario will continue to embrace.

The design-build-finance-maintain model requires close coordination among all the parties involved in the project: the designer/architect, builder, and maintenance contractor, each of whom has expertise in their area. Together, they must develop an approach that integrates capital and operating costs over a contracted period of time and minimizes the total costs. To comply with holdback provisions in the project agreement, they must also ensure the asset is in good condition at the end of the contract.

As a result of these changes, the Province now expects Infrastructure Ontario to participate in a far broader range of infrastructure activity, and anticipates a steady flow of capital projects to be delivered by Infrastructure Ontario over the next 10 years.

In early June of 2011, the Province merged Infrastructure Ontario with the Ontario Realty Corporation, an agency responsible for provincial government buildings and land. The merger is in line with a provincial commitment to reduce the number of agencies and examine ways to eliminate overlap and duplication in government activities. One of the expected benefits of the merger is that the government's procurement policies and decisions would, in the future, be better aligned with its real estate decisions.

Leveraging AFP accomplishments

Success in a more dynamic procurement market at home is allowing Canadian construction firms to market their skills globally. A recent article in the *National Post* reported that senior officials with Export Development Canada have found that many prospective international clients are eager to talk about what Canadians can do on a range of infrastructure projects.

"(Canada is) punching above its weight" for its infrastructure capability, one official noted. Because there is increasing interest internationally in using approaches similar to Ontario's AFP model, Canada is also frequently cited as an example of how governments can work with the private sector.

The official noted that major infrastructure projects completed at home provide Canadian firms with a much-needed showcase when marketing to international clients.

Health care infrastructure in particular is a growing international market.

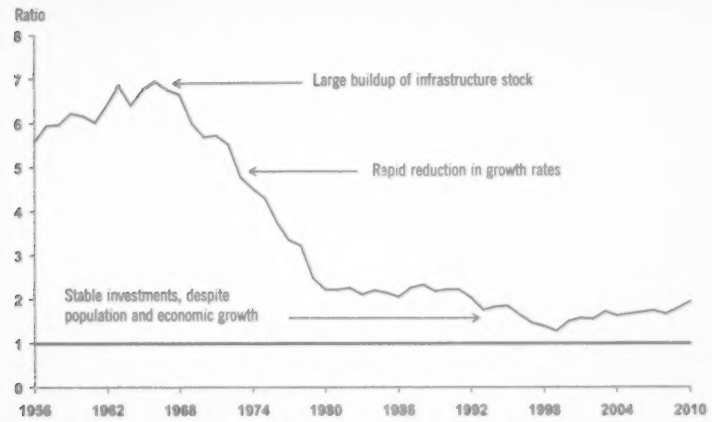
Ontario has used the AFP model for 34 major hospital projects completed, under construction or in planning. By taking part in this domestic market, Ontario firms have developed expertise that has helped them win international assignments.

Managing assets better

Poorly maintained infrastructure delivers a lower quality of service and can increase risks to health and safety. As well, it generally fails sooner and costs more to repair or replace.

Many public organizations did not properly maintain their assets from the early 1970s to the late 1990s because infrastructure was not seen as a key public priority over that period. The chart below shows this trend by plotting the ratio of infrastructure investments to the level at which infrastructure assets reached the end of their service lives. By the late 1990s, infrastructure was not providing adequate levels of service and there was an acute need for investment. At that point, however, information to make good investment decisions was often lacking. There was no government-wide inventory of the Province's infrastructure, for example.

CHART 12 **Ratio of Capital Investments to Asset Expiration in Public Infrastructure**



Sources: Statistics Canada and Ontario Ministry of Infrastructure

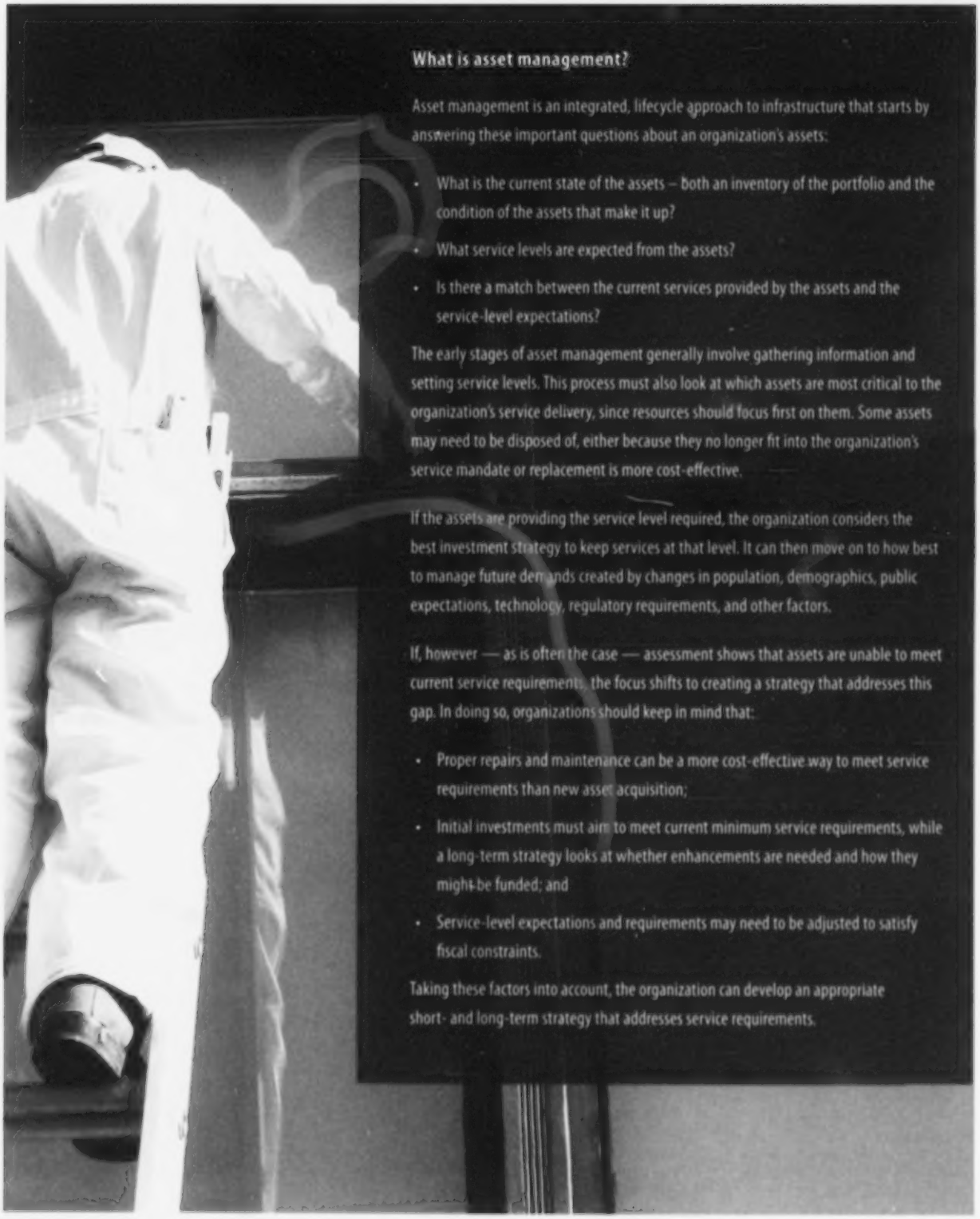
The Province has worked over the past several years to put in place robust asset management practices. Each provincial ministry that owns and operates infrastructure is now required to prepare and update an annual inventory of its infrastructure assets and a plan to maintain those assets, based on a consistent framework. These requirements cover, among other things, transportation assets, colleges, hospitals and schools, as well as many provincial agencies, boards, and commissions.

- Reflecting this work, the Province will regularly release a "State of Ontario's Infrastructure" report that will describe the infrastructure portfolio and give key performance measures and benchmarks.

Other organizations across Ontario's public sector, such as municipalities and universities, also own significant capital assets. The Province expects asset management planning to be a normal and comprehensive part of the stewardship responsibilities of these organizations. Many have already begun this work. The City of Hamilton, for instance, has published several "State of the Infrastructure Reports," which earned the city an InfraGuide National Award of Excellence for leadership and innovation in municipal infrastructure management. As well, Ontario universities received an award for service excellence in 2010 from the Real Property Institute of Canada for their asset management program.

The high cost of neglect

As every homeowner knows, it is tempting to put off the costs of regular maintenance. But neglecting upkeep quickly translates into high costs. Put off the painting of wooden siding, for example, and the result in a very few years is the need for new siding — often signalled by costly water damage to the house. For highways, small cracks that aren't filled let in rain and snow that cause the pavement to heave and fracture. Estimates of the costs of deferred maintenance vary across types of asset, but many experts cite a "Rule of Five" that says every dollar of maintenance put off now will cost $5 later. For example, in a 1998 study, the World Bank determined that every dollar not invested in maintaining roads at the right time results in a later cost of $2 to the road agency and $3 to the road user.



What is asset management?

Asset management is an integrated, lifecycle approach to infrastructure that starts by answering these important questions about an organization's assets:

- What is the current state of the assets – both an inventory of the portfolio and the condition of the assets that make it up?
- What service levels are expected from the assets?
- Is there a match between the current services provided by the assets and the service-level expectations?

The early stages of asset management generally involve gathering information and setting service levels. This process must also look at which assets are most critical to the organization's service delivery, since resources should focus first on them. Some assets may need to be disposed of, either because they no longer fit into the organization's service mandate or replacement is more cost-effective.

If the assets are providing the service level required, the organization considers the best investment strategy to keep services at that level. It can then move on to how best to manage future demands created by changes in population, demographics, public expectations, technology, regulatory requirements, and other factors.

If, however — as is often the case — assessment shows that assets are unable to meet current service requirements, the focus shifts to creating a strategy that addresses this gap. In doing so, organizations should keep in mind that:

- Proper repairs and maintenance can be a more cost-effective way to meet service requirements than new asset acquisition;
- Initial investments must aim to meet current minimum service requirements, while a long-term strategy looks at whether enhancements are needed and how they might be funded; and
- Service-level expectations and requirements may need to be adjusted to satisfy fiscal constraints.

Taking these factors into account, the organization can develop an appropriate short- and long-term strategy that addresses service requirements.

Going forward, to ensure good asset management planning across the public sector:

- Any university, municipality, social service agency, or other transfer payment partner seeking significant provincial capital funding will be required to publish a detailed public asset management plan. The plan will describe the proponent's infrastructure portfolio and identify gaps. The analysis supporting the specific request must be developed in the context of the entire portfolio covered by the asset management plan.
- To help develop these plans, the Province will make available an asset management framework based on the one currently used internally. This framework will provide best practices for managing assets.

The Province will consult with those affected, including the Association of Municipalities of Ontario and the City of Toronto on the required content of these plans. These requirements would be phased in over time. In addition, to minimize any reporting burden on municipalities, the plans would build on and consolidate existing reporting requirements.

A warranty approach to paving

The Ministry of Transportation says its seven-year warranty approach to paving projects will provide an ongoing model for future contracts.

The warranty initiative, which combines design-build concepts with multi-year warranties on hot mix paving, has undergone a five-year trial phase. It is outcomes-based, in that it sets the specified result, then holds the paving contractor responsible for the design and materials of the pavement structure and all quality control testing to achieve the specified result.

To date, the approach has resulted in pavement designs as strong as or stronger than those specified in conventional contracts.

The Ministry evaluated various warranty periods to balance its needs with the abilities of contractors to manage the risk. Earlier trials of three- and five-year warranties led the ministry to conclude that those periods were not long enough for the pavement to show any defects. A warranty that was too long, however, would carry a high bidders' risk because contractors could not reasonably predict performance.

A ministry official has noted that seven years is a good length of time because "if the contractor can get the road to last seven years to warranty specifications, it's likely it will make it all the way to 18 or 20 years."

Asset management will also play a role in the Province's commitment to reduce the environmental impacts of public infrastructure.

- Asset management plans would have to show how climate change adaptation was considered in the project design. The Ministry of Infrastructure is currently undertaking vulnerability assessments on three government buildings to better understand the impacts of climate change. The Province will carry out additional assessments on critical infrastructure such as bridges and water systems to support its own planning and that of other public sector bodies.

Working on DataWorks

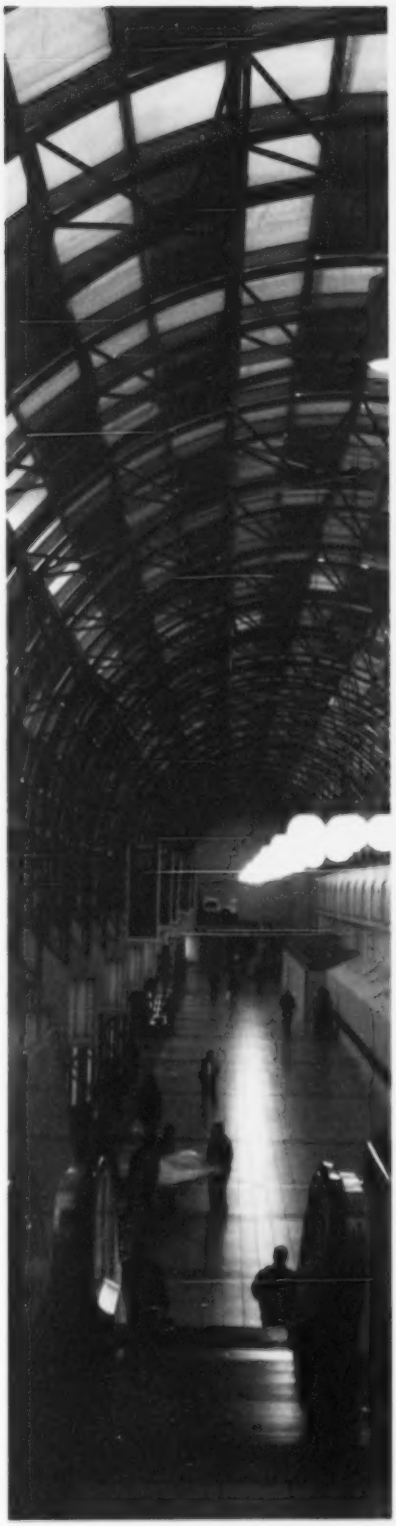
At the municipal level, the Province's funding for Municipal DataWorks, created and managed by the Ontario Good Roads Association, has already helped to build the foundation for the evolution towards better asset management. The Province provided $450,000 to the association for enhancements to the DataWorks system in December 2009.

Municipal DataWorks is a software tool to help municipalities make informed investment decisions and minimize lifecycle infrastructure costs by keeping assets in good repair.

The funding was used to make Municipal DataWorks more powerful and provide better integration with other asset management systems. It is enabling municipalities to use the system to create five-, 10- and 20-year capital plans for long-term strategic management.

Another benefit was to improve Municipal DataWorks' ease of use by creating an aggregated, online database with tools to import and export data from the system and create flexible reports on the extent and condition of municipal infrastructure.

In view of the importance of municipal bridge asset management, the Ministry of Transportation has given the roads association grants totalling more than $1 million since March 2010 to help municipalities collect bridge data for input into Municipal DataWorks.



- The Province currently builds to the Leadership in Energy and Environmental Design (LEED) standard, where appropriate. Over the course of this plan, the Province intends to designate a higher energy and environmental building standard for new construction and major renovations for both provincial and other public sector facilities. The Province will hold consultations to determine what standards will apply.

- The Province already monitors energy and water use by its own facilities and has set targets to reduce its emissions of greenhouse gases. Over the next decade, a broader range of metrics will be developed to better monitor and report on the environmental performance of infrastructure owned by the Province and its partners across Ontario's public sector.

- The Province will work towards including environmental measures in its "State of Ontario's Infrastructure" reports. As well as helping to monitor the environmental impact of public infrastructure across sectors, performance measures would help to improve both asset management decisions and environmental stewardship. For example, reporting could show how choosing more energy-efficient equipment saves operating costs while reducing greenhouse gas emissions.

These steps will ensure that by the end of the decade, all asset management practices and plans for projects supported by provincial funding will reflect the same level of rigour and show the same consideration for the environment.

The hands that build: A more robust construction sector

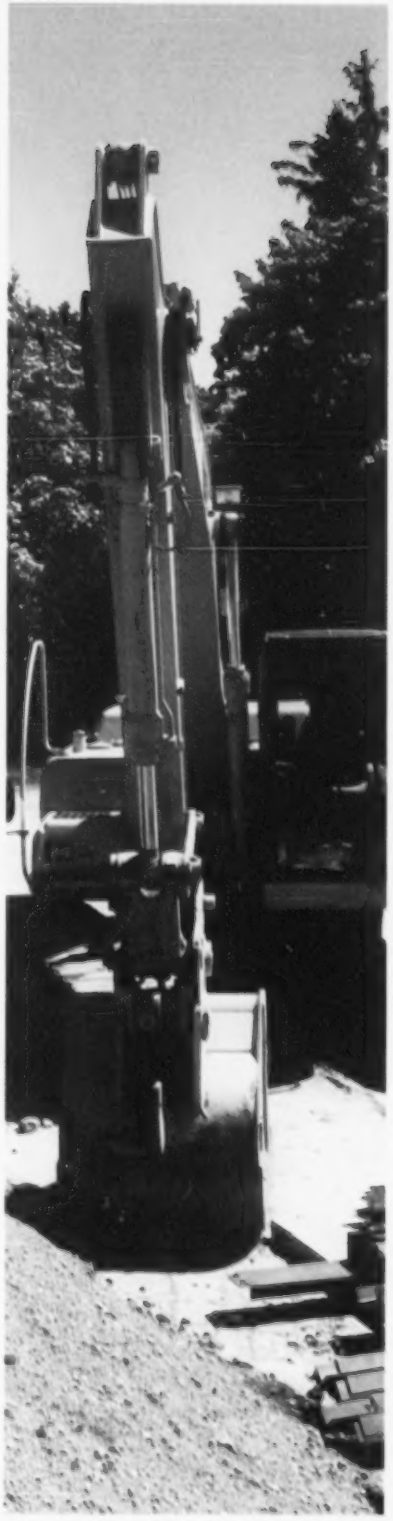
The government has an important stake in the success of the province's construction sector.

First, the construction sector is a source of important economic activity. More than 425,000 Ontarians work in construction, representing more than 6.5 per cent of the province's employment in 2010. That figure includes engineers, architects, contractors, designers, project managers, material suppliers, equipment operators, skilled trades, and labourers. Firms range in size from one-person outfits to major international companies. Taken as a whole, the sector accounts for five per cent of Ontario's economy and generates approximately $25 billion of economic activity a year.

Second, the government depends on the construction sector to deliver the top-notch, affordable public infrastructure on which people in Ontario rely for social and economic needs. At present, public investments in infrastructure account for more than a quarter of all construction activity in the province and nearly half of all non-residential construction activity. This market power gives the Province a unique window into the strengths and challenges of the sector and an opportunity to work with the sector to help shape positive outcomes.

Over the next 10 years, the sector could experience challenges:

- Although widespread labour shortages are not expected to emerge, the Canadian Construction Sector Council predicts that by the middle of the decade, skill shortages in the construction sector could reach critical levels for some jobs. This may affect the overall timing and cost of large projects if the industry does not attract additional labour to meet growing demand.

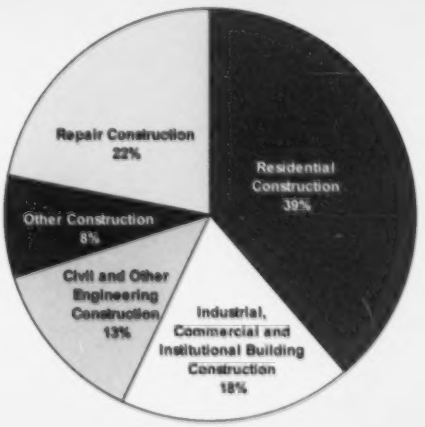


- Since 1990, non-residential construction inflation in Ontario has grown faster on average than overall inflation and most forecasters expect this trend to continue.
- Recent studies suggest that Canada's construction industry ranks behind other sectors in productivity gains.

Over the course of this plan, the government intends to work with the construction sector to address these challenges. In particular:

- To help drive productivity gains, the Province will foster more competition through increased use of procurement standardization. At the same time, it will continue to tender projects in a range of sizes to support small and medium-sized construction companies.
- To ensure that the government is attuned to the concerns of the construction sector, the Minister of Infrastructure will meet on a quarterly basis with its representatives. This will provide opportunities for a mutual exchange of views on such issues as changes in procurement practices, advances in construction techniques, and Ontario's progress in reviewing the regulatory requirements for the sector.

CHART 13 **Breakdown of Ontario's Construction Industry in 2009***



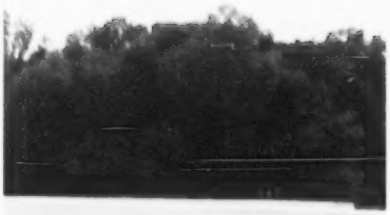
*Based on real 2002 prices – Share of total construction sector
Sources: Statistics Canada and Ontario Ministry of Infrastructure

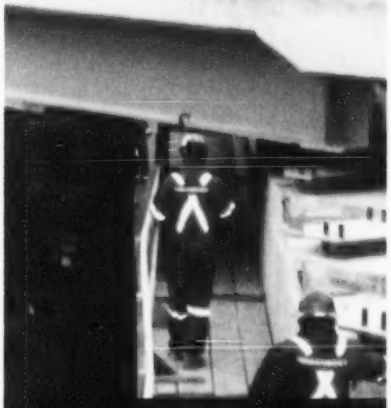
Finally, the government will promote Ontario's construction sector abroad. In the years to come, global demand for construction services is expected to increase. For example, it is estimated that an average of $2 trillion a year will be invested in economic infrastructure, including highways, railways, and water, telecommunications, and energy systems over the next 20 years.

The government believes that the province's homegrown construction services sector is well positioned to capitalize on this global demand. Ontario's sophisticated market for infrastructure financing has created significant expertise in the area of advisory services. Some of the best engineering, architectural, and design work is done right here in Ontario. Homegrown companies, big and small alike, consistently deliver a first-rate product. To assist Ontario's homegrown industry, the government will organize trade missions to generate opportunities abroad.

Canada's — and Ontario's — growing reputation

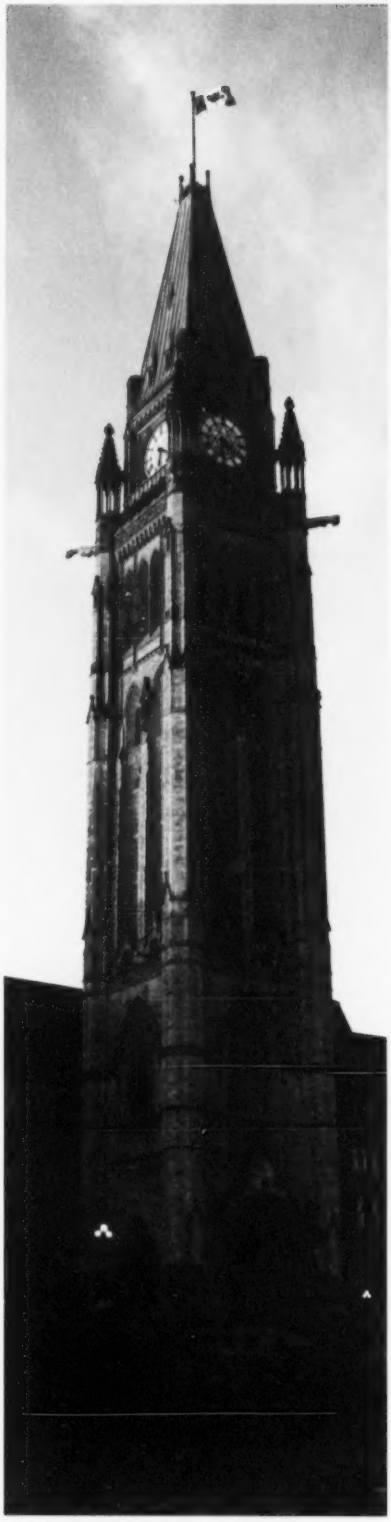
Of the top projects from around the world selected for inclusion in the *Infrastructure 100* report published by KPMG in 2010, judges selected nine from Canada. The Bridgepoint Hospital development in Toronto was highlighted in the health care category. The report noted that "Environmental credentials are central to the Bridgepoint Hospital. The 680,000 square foot state-of-the-art facility will have 472 beds over 10 floors and will include a dedicated Ambulatory Care Centre. Of particular interest is the preservation of the neighbouring Don Jail.... On the interior, the main focal point of the building, the rotunda, will be restored to its original architectural beauty.... Judges appreciated that this LEED-certified project incorporated an existing building into its design. The result will be an exceptional fusion of traditional and modern designs."





New bridges with less disruption

Construction-sector innovation is helping to carry out bridge replacement cost-effectively and with less traffic disruption. A new bridge is built next to the old one and then, over a few days, the old bridge is removed and the new bridge pushed into place with hydraulic jacks. Traditionally, a complete bridge replacement can cause traffic disruptions over nine to 12 months. The new method has been piloted successfully in Ontario.



Working with others

Ontario's infrastructure challenges can be addressed only by the combined efforts of Ontario, the federal government, municipalities, and neighbouring jurisdictions. In particular, there is a strong need to work together to tackle the needs created by deferred maintenance as well as to address new demand.

Federal government

The federal government must continue to support provincial and municipal infrastructure in Ontario, particularly where the investment yields widespread benefits for people, the environment, and the economy. One such key area is transportation. In particular, Ontario welcomes the federal commitment to the Windsor border crossing renewal and the Continental Gateway strategy. Other important areas include small water systems, knowledge infrastructure, and transit.

According to the Canadian Chamber of Commerce, Canada is the only country in the Organisation for Economic Cooperation and Development without a national transit strategy. Such a federal strategy is required to allocate long-term funding to transit service providers to maintain and expand their transit systems.

Most of the recent federal government funding for infrastructure has taken the form of time-limited programs delivered in partnership with Ontario and local governments. The Government of Canada's Building Canada Plan, announced in 2007, will continue to 2014.

In 2009, to promote economic growth and create jobs in response to the global economic recession, the federal government increased public infrastructure investment beyond the levels committed through the Building Canada Plan. It also broadened the scope of its investments by adding universities and colleges. Nearly 11,000 Ontario projects with total costs of $8.2 billion, delivered in partnership with the Province and project proponents through the infrastructure stimulus programs, are expected to be complete by October 31, 2011.

The design and implementation of future federal infrastructure programs must reflect provincial needs and interests. They must also be based on meaningful dialogue between Ontario and the federal government. Ontario encourages the federal government to develop cost-shared programs that meet these criteria.

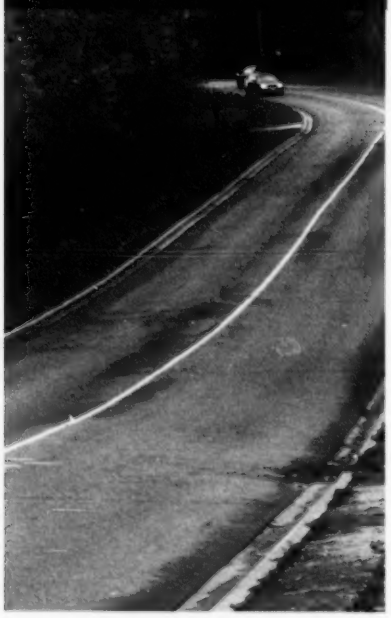
Municipalities

The mix of funding sources available to municipalities has evolved considerably over the past decades and will continue to evolve. Some of the factors that will shape municipal infrastructure investments over the next decade include:

- Intensifying urbanization and population growth, which will provide some municipalities with greater property tax revenues, while others will deal with the challenge of a stable or shrinking property tax base;
- The provincial gas tax program, which provides dedicated funding for public transit;
- The federal gas tax fund, which supports environmentally sustainable municipal infrastructure;
- Additional fiscal room will open for many municipalities as the Province gradually uploads certain social program and other costs; and

Municipalities move to accrual

In 2009, municipalities changed how they account for and report on their infrastructure investments, moving to what is called full accrual accounting. Under this treatment, the full cost of the initial acquisition or building of an asset is no longer reflected just in the year in which it happens. Instead, the cost is spread over the asset's service life and recorded year by year as "amortization expense." The Province undertook the same change in accounting treatment in the 2002–03 fiscal year. The move to full accrual accounting is providing municipalities with key financial information to develop long-term asset plans and help municipal councils make informed financial decisions.



- Municipal decisions to use fees for various services they provide, especially as a way to limit economically and environmentally unsustainable demands on services and resources.

Municipalities will have better information for decision-making as a result of the continuing impact of changes in accounting treatment that began in 2009. This provides a real opportunity to develop asset management planning for municipalities that articulates the value of infrastructure investments in communities.

In 2008, the Government of Ontario, Association of Municipalities of Ontario, and City of Toronto completed the Provincial Municipal Fiscal and Service Delivery Review process, an assessment of fiscal and other arrangements that included infrastructure issues. The review concluded that municipalities are in the best position to build and manage the infrastructure that provides service and benefits mainly to their residents. These include solid waste management, water and wastewater systems, local roads, and public transit. A followup joint provincial-municipal process has been undertaken to develop options regarding responsibilities and funding arrangements for roads and bridges. Recommendations from this review are expected in 2011.

As a further result of the review, the Province reassumed certain social program costs that had been transferred to municipalities in the late 1990s. By 2018, the Province will have increased ongoing annual support to municipalities to $4 billion, an increase of 270 per cent since 2003. In part because of the fiscal room that this change opened for most municipalities, the final report called on municipalities to increase their investment in infrastructure, in partnership with the provincial and federal governments.

Ontario will continue to urge the Association of Municipalities of Ontario, Federation of Canadian Municipalities, city of Toronto and federal government to work with it to establish a municipal infrastructure investment strategy that is responsive to needs and to the fiscal capacity of the respective orders of government. Such a strategy could help meet the challenges of the existing infrastructure deficit and emerging needs.

Other partners

Ontario will also seek new partnerships with neighbouring provinces and U.S. states, and Aboriginal communities, to coordinate projects and share their costs and benefits.

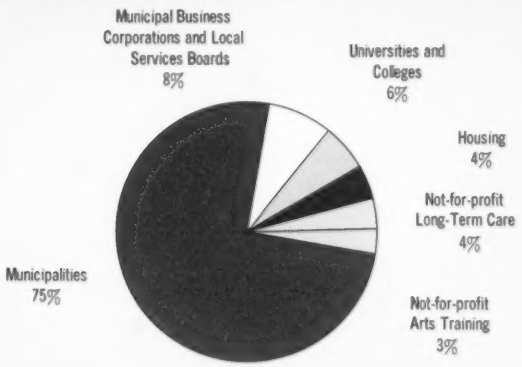
Help with infrastructure financing

Infrastructure Ontario helps Ontario's public sector partners finance their infrastructure at affordable rates. It borrows on behalf of a pool of municipalities and other eligible public organizations, which allows smaller borrowers to secure financing at more reasonable interest rates than would otherwise be available to them. The fixed-rate loan program also offers debentures of up to 40 years, much longer than is typically available from traditional lenders.

Municipalities comprise the majority of loan clients, with nearly half of Ontario's municipalities having participated in the program. The program has been expanded gradually to include all infrastructure expenditures by municipalities, universities, local services boards, and some not-for-profit organizations, including long-term care homes, social and affordable housing providers, arts training organizations, and hospices.

Since 2003, the loan program has approved and executed $4.5 billion in affordable loans to 287 eligible recipients, including $3.4 billion to 206 municipalities. The roughly 1,400 infrastructure projects financed through the program had a total project value of $7.2 billion.

CHART 14 **Sector Share of Total Infrastructure Ontario Approved and Executed Loans**



Source: Infrastructure Ontario as of May 25, 2011

The government will consider expanding the loan program further to include more not-for-profit organizations and cooperatives that provide infrastructure with important public benefits.

Conclusion

This long-term plan sets out an infrastructure investment strategy that will act as a catalyst for Ontario's economic growth and quality of life. Around the world, other economies are investing in infrastructure at unprecedented levels. Over the next decade, Ontario must continue investing to remain competitive. The more than $35 billion in investment planned over the next three years will be put to work helping to ensure that our goods get to market on time, road congestion is reduced, people have better access to public transit, our workforce is well educated, and our health care system is sustainable.

As important as those investments are, this plan does more for people in Ontario. Through innovation and good management, it aims to make infrastructure investments more cost-effective and to ensure projects get finished on time and on budget. It will help to protect Ontario's critical infrastructure against the challenge of climate change, and ensure that infrastructure is accessible and sustainable.

Over the next decade, this plan will ensure that proper care of infrastructure assets — making repairs and upgrades when they are needed, to avoid more costly action later — becomes a regular and accepted part of the way provincially funded organizations in Ontario go about their business.

Since 2003, Ontario has made significant progress in reducing its infrastructure deficit. This plan will build on that strong foundation.

Building a strong future will also call for the support and efforts of Ontario's partners. In particular, the Province looks forward to working with the federal government and Ontario municipalities to strengthen the infrastructure systems that are central to economic growth and our quality of life.

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